## The Morality of Music

# A Quantitative Approach to Moral Self-licensing in Music Consumption 

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#### Abstract

The aim of this master thesis was to learn about the concept of moral self-licensing in the domain of arts and culture. Therefore, this thesis looked at both, in-domain as well as cross-domain moral licensing and compared high and low culture in the domain of music. The research question this thesis tried to answer was thus to what extent moral self-licensing occurs in the domain of classical and popular music. In order for a moral licensing action to happen, the preceding action has to be evaluated as morally good. As no other research on moral licensing has been conducted yet in the cultural field, first it had to be determined what general reasons there are to evaluate an action as moral. A literature review of previous research on the topic revealed that there are three main reasons as to when an action is evaluated as being moral: the action is perceived to have beneficial effects for one's health or physique in general, the action improves one's selfesteem, or the action is believed to enhance how one is perceived by others. If an action is perceived as fulfilling one or more of these criteria, then it is possible that it will evoke a moral licensing action. For this thesis it was assumed that music could be ascribed with all three of those triggering reasons. Therefore this thesis conducted a laboratory experiment in order to find out if whether listening to music would indeed trigger a licensing effect and if this effect differed in its extent for classical and popular music. The data was then analysed by means of various statistical tools. It was found that the consumption of popular music does not trigger a moral licensing effect, neither indomain nor cross-domain. Listening to classical music as well did not result in indomain moral licensing; it did however evoke cross-domain moral licensing. This thesis therefore found statistical evidence that the consumption of classical music triggers a moral self-licensing effect. With its findings and by adding a new field to the scientific discourse, this thesis might contribute to the research on the concept of moral selflicensing which is conducted in various fields.


Keywords: moral self-licensing, cultural consumption, classical and popular music, cross-domain, in-domain

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## 1. Introduction

Does drinking sauerkraut juice make you a Nazi? No, it does not - but according to a research by Messner and Brügger (2015) you are more likely to admit to your support of right wing ideology than if you were drinking ice tea or nothing at all. Of course it is not the Sauerkraut juice itself triggering this result but the positive health benefits attributed to the juice. The concept which explains this effect is called moral selflicensing. Very simply put it means that "doing something moral gives one a license to do something immoral" (Messner \& Brügger, 2015, p. 1144). In other words, past moral actions evoke morally dubious behaviour because people are more confident that they will not feel or appear immoral due to their immaculate behaviour in the past (Merritt, Effron \& Monin, 2010). The metaphor of a moral bank account is often used to explain this phenomenon (Miller \& Effron, 2010; Monin \& Miller, 2001). By doing something morally valuable the credit in the account goes up and can then be 'spent' on something immoral. Such an immoral action can either take place in the same domain (in-domain) or in a different domain (cross-domain) than the one where the moral behaviour took place (Merritt et al., 2010). If we return to the example of the sauerkraut juice, then drinking it is the morally valuable action taking place in the domain of nutrition while admitting to support of right wing ideology would be the morally questionable licensing action taking place in the domain of political opinions. It could also take place in the reversed order, when an immoral action is followed - and compensated - by a moral action, which is called moral self-cleansing.

Research on the concept of moral self-licensing - and moral self-cleansing alike is a rather young development. Most of the research has been conducted during the first decade of the $21^{\text {st }}$ century and later (Merritt et al., 2010). The concept of moral selflicensing has been researched in various domains such as for example nutrition, consumer choices in general, altruism or altruistic behaviour, political correctness, or prosocial behaviour and environmental attitudes (Khan \& Dhar, 2006; Merritt et al., 2010; Messner \& Brügger, 2015). Studies have shown that people are more likely to cheat after doing voluntary work or after buying organic products and that after having the chance to endorse Barack Obama people are more willing to favour white people over black people in terms of job suitability or giving money to organizations supporting
white rather than black people (Effron, Cameron, \& Monin, 2009; Merritt et al., 2010; Messner \& Brügger, 2015). This and other previous research is discussed more elaborately in the theoretical framework section of this thesis. Despite the many different fields in which moral self-licensing has been researched, it was never investigated in the domain of arts and culture. Yet, the more moral self-licensing is researched in different domains, the more we can learn about the concept in general. This research therefore wants to contribute to the further exploration of a relatively new concept in a domain not yet considered by researchers.

If we argue from the premise that different values and effects are ascribed to different categories of art, such as high and low, then the consumption of art could be seen as a more or less valuable action depending on the kind of art consumed. It therefore might be interesting to find out whether moral self-licensing is also found after the consumption of arts and culture and if there is a difference in the extent of the licensing action to be found between high and low arts. The aim of this master thesis is therefore to answer the following research question:

To what extent does moral self-licensing occur in the cultural domains of classical and popular music?

While other forms of cultural consumption were considered, music is chosen as the cultural form to be investigated. This due to two practical reasons: firstly, the distinction between high and low culture can be adapted into the concepts of classical music and popular music as is discussed later on in the theoretical framework. These concepts provide an often discussed and applied categorisation rendering it redundant to invent new categories. Moreover, it is simply the categorisation which is used most often if highbrow as well as lowbrow music is to be researched (Middleton, 1993). The second reason is the flexibility the consumption of music provides. It is not tied to a certain place or time - like it would be the case if exhibitions or theatre visits would be researched as triggers of moral licensing - and can therefore take place anywhere. Listening to music is also less time consuming than for example having the participants read literature or watching a movie. Next to that, in order to research theatre or cinema as the cultural input, a field experiment would be needed. The reasons why it was decided on a laboratory experiment are elaborated on in the method section. Moreover, due to its independency from a specific location or time, it is possible to switch between
the different musical categories after each group of participants in order to suit the category the group in question has been assigned to.

A moral-licensing action is triggered by a moral action. The denomination of moral is to be understood in a broad sense here. There are three main variations of how this moral value can be perceived in an action. The person in question feels that the triggering factor will benefit him or her physically or feels that it will improve either his or her self-perception or the perception by others. These three variations of a morallicensing trigger will be discussed in detail in the theoretical framework. For this research it is assumed that all of these three triggers can be experienced when listening to music, therefore turning the consumption of music into a moral action. The effects of music on people have been researched by the score. In chapter 2.2.4. in the theoretical framework examples of these researches and the possible beneficial effects of music are given. Under the premise of a difference in valuation of classical and popular music, it can be argued that listening to either classical or popular music can make a difference in how the listener is perceived by himself or others. Therefore listening to certain musical styles might also account for an improvement of one's self-regard as well as the perception by others. The distinction between high or classical and low or popular music is therefore likewise discussed in the theoretical framework.

Next to the concepts already mentioned, the above stated research question incorporates of course the theoretical concept of moral self-licensing. A discussion on the concept including a demarcation of the term and an overview over previous research is provided in chapter 2.1. The already mentioned concepts of classical and popular music, the values ascribed to the different musical styles and the demarcation between high and low music, as well as the effects music might have are also reviewed, investigated and demarcated in the subsequent theoretical framework chapter.

This research is conducted by means of a quantitative approach in form of an experiment which includes listening to a pre-arranged selection of either classical, popular, or no music at all and answering a questionnaire afterwards. Students of the Erasmus University Rotterdam form the population for this research. Those students who agree to participate in the experiment form the sample. Therefore no specific sampling method is applied, as all the students willing to participate is included. They are randomly assigned to the style of the music they will listen to. The participants of
one group however are able to decide individually if they want to hear classical or popular music. Therefore there are four groups in total: one listening to classical music, one to popular, one whose participants can choose and one who is only answering the questionnaire without having listened to any music first. In this research, both crossdomain as well as in-domain moral licensing is researched. The in-domain effect is tested by means of questions in the questionnaire which relate to music itself and will provide the opportunity to execute a licensing action. The cross-domain effect is tested by offering the participants the chance to conduct a licensing action in the domain of nutrition. Once the experiments are conducted and the data is gathered, it will be analysed by means of various statistical means, described more elaborately in the method section of this paper.

The results of this thesis could have practical implications. If this research indicates that moral licensing behaviour is to be found after the consumption of music then this could be used in future marketing strategies to gain audience for the arts and especially the high arts. Classical music for example struggles to gain new audiences. Promotion for the high arts and especially for classical music is still not very proactive and does only reach a very limited amount of potential visitors. Research has shown that more than $70 \%$ of the visitors of classical concerts know about a particular event due to their personal network, reviews in newspapers or because they own a season ticket for the venue in question (Hoffmann, 2007). Moreover, the current audience of classical music will diminish by more than a third within the next thirty years (Hamann, 2005). Therefore venues of classical music are in need of new consumers.

Currently advertisements are mostly placed in environments which are frequented by existing audiences. Given that there are moral licensing actions in regard to music consumption then this might provide a new and unusual ways in which future audiences can be approached by means of promotion. Advertisements for example could be created in a way which emphasises the moral (again in the wide sense as was described above) aspects of music consumption. This by indirectly reminding possible audiences that listening to that kind of music or going to a certain concert etc. will provide an opportunity to conduct a licensing action afterwards or that it can be seen as a moral-cleansing action. To give a concrete example, music consumption could be presented as a moral-cleansing action when the promotion is placed at places where
actions take place which might possibly trigger such a moral-cleansing effect. Some examples would be smoking or eating unhealthy food which fits in the category of the first trigger. Another example would be conducting environmentally critical behaviour like tanking up at a gas station. In short, at places where people are aware that they conduct an 'immoral action' and are therefore more open to balance or cleanse it out.

Moreover, the results of this thesis will contribute to the further examination of the concept of moral self-licensing by researching the phenomenon in a domain which previously has not been researched. Researching a new domain will add to the knowledge and understanding of the concept of moral self-licensing. The intention of this thesis is therefore to contribute to the relatively new concept of moral self-licensing by focussing on the domain of arts and culture. In addition, this research provides the chance to find out whether the assumptions as to why moral self-licensing could occur in the domain of culture as stated earlier in this chapter and explained in more detail in the theoretical framework prove to be correct.

## 2. Theoretical Framework

This chapter will firstly explain the concept of moral self-licensing and will provide an overview of the research that has so far been conducted on this concept. As there is no previous research in the domain of culture, the rest of this chapter focuses on concepts which provide possible explanations as to why moral self-licensing could be found within the domain of culture and more specifically in the domain of music. The concepts used can be summarised under the consumption of culture in general and music in particular. However, cultural consumption will be used here as an overarching concept of which only certain aspects of importance for this research will be included. This means that only theoretical concepts which might possibly explain why listening to music could trigger a moral-licensing effect will be debated. To start off, the socially created distinction between high and low culture is discussed as well as the values assigned to each of those categories. After having looked at culture in general, it will be moved on to music in particular including the characteristics and values which are ascribed to music. Next, classical and popular music are defined and demarcated. This in order to theoretically substantiate why there might be a licensing effect as well as why there might be a difference in the extent of moral licensing behaviour between the two categories of classical and popular music. This includes looking at the alleged effects of music as claimed by various studies.

### 2.1. The concept of moral self-licensing

Although every research has its own definition of moral licensing, they all only differ from each other in their formulation but are very similar in their content. Therefore they can all be boiled down to the following statement. In a nutshell, moral self-licensing can be defined as "the mechanism by which completed moral actions boost people's moral self-concept, which in turn decreases the tendency to act morally" (Weibel, Messner, \& Brügger, 2014, p. 38). How moral licensing works and when it occurs is described by Miller and Effron (2010). According to them, people tend to refrain from conveying their attitudes due to dread of moral disrepute and because they fear to violate the moral norms which are accepted in general by the society they live in. This fear to discredit themselves however can be lessened by past behaviour. If in the past they expressed an
opinion or acted in a way which can be perceived as complying with moral norms, then this can encourage them to subsequently express an opinion or act in a way which does not comply with moral norms. This happens because they feel that their current (immoral) behaviour will be judged less harshly or even be perceived as neutral due to them acting morally in the first place. They therefore believe that their behaviour will be interpreted in a way which will not disrepute them. To put it bluntly, their past moral behaviour provides them in their eyes with a carte blanche for future more or less questionable moral behaviour.

Moral self-licensing must therefore not be confused with a change in attitude - it is not the attitude which changes, it is the persons feeling towards that attitude and the expectation of the reaction other people might have on that attitude. This can be illustrated by the example used in the introduction with the experiment on sauerkraut juice and subsequent right-wing political statements. The participants did not develop those political attitudes after drinking the healthy juice, they were simply more likely to admit to them because the drinking of the juice had lessened their fear of a reprimand (Messner \& Brügger, 2015). Therefore, past behaviour can lessen a person's "concern that acting on or expressing an attitude will discredit them morally" (Miller \& Effron, 2010, p. 117).

A licensing action can take place in two ways. It either is conducted in the same domain (in-domain) as the preceding moral action, or it can also take place in a different domain (cross-domain) than the moral behaviour (Merritt et al., 2010). For example, if the moral action happened in the domain of cultural consumption, the licensing action could either take place within that same domain, or in a completely different one such as for instance nutrition. In this research both, options for in-domain as well as the crossdomain moral licensing are provided.

It has been established, that a moral action can license an immoral action. In order to find out whether this moral action needs to be completed or if it is enough for it to be intended, various studies have been conducted. The results however differ greatly. Khan and Dhar (2006) gave people a chance to hypothetically decide for which organisation they would volunteer. Afterwards they were asked if they wanted to donate a small sum of money they had received previously from the researchers. It turned out that the participants who had imagined volunteering gave less money to charity than
participants in the control group who did not have the chance to decide on an organisation. When they conducted a similar experiment, only this time instead of donating money the participants could state if they preferred a luxury good over a practical one, the outcome was the same. Tanner and Carlson (2008) confirmed that a hypothetical decision can evoke moral self-licensing. They found that after stating what their intentions would be in an ideal world regarding for example donating blood, people were less likely to want to donate blood in the real world.

These findings are contradicted by Mazar and Zhong (2010) who found that exposure to green products resulted in people acting more altruistically. Had they however bought green products, then they were less altruistically and more inclined to steal and cheat. This was tested by means of a game for which the participants could win a certain amount of money. Through a particular cheating action (which they were able to discover during a trial of the game) they could increase the money they were to get after the experiment. Weibel et al. (2014) as well researched this question but focused on moral self-cleansing. They found that after remembering an executed immoral or egoistic action, people are more likely to choose healthy food in comparison to when remembering an unselfish action. The effect of self-licensing only took place when the remembered action had actually been conducted. They explain this by referring to the goal theory which states that behavioural intentions lead to consistent instead of inconsistent or compensating behaviour in order to succeed at reaching one's aim. They then argue that a completed instead of just intended moral action leads to compensating or in other words inconsistent behaviour. They therefore conclude that whether there is a self-licensing effect depends on the "action stage" (p. 44) of the remembered (im)moral action. In other words, it matters whether an action has been conducted or was only meant to be conducted. Past actions therefore can determine future actions.

An explanation for this difference might be, that in the examples where a hypothetical moral action lead to self-licensing the participants were still able to voice their intended moral action to a third party, therefore kind of establishing their moral high ground. The participants in the experiment by Mazar and Zhong (2010) on the other hand were only exposed to green products; they did not actually get the chance to utter their preference for these products. We therefore have to establish that in order to
trigger a moral licensing action a previous moral action needs to be conducted or the intention to act morally needs to be made known among others.

### 2.1.1. Moral credits and moral credentials

There are two models of moral self-licensing: moral credits and moral credentials. All the research conducted on moral self-licensing can be assigned to either explanation. The key difference is whether the licensing act "changes the meaning of the behavior being licensed" (Merritt et al., 2010, p. 6). For the moral credits model, the behavioural history can be seen as a bank account with the 'content' of which one can balance out prospective misbehaviour. This idea stems from Hollander (1958) who focused on groups and group conformity: "conformity provides credits, whereas norm violations incur debits that will be tolerated so long as one has sufficient credits to balance them out" (Miller \& Effron, 2010, p. 124). In the current understanding of the theory, moral credits can be gained by moral behaviour. These credits can be used to equal out immoral behaviour at a later moment in time. Immoral behaviour will therefore be accepted (and not be interpreted as such) as long as it can be balanced out by credits accumulated during past behaviour (Miller \& Effron, 2010). An example fitting in the moral credits model would for example be the research by Mazar and Zhong (2010) which involves stealing and cheating as the licensing action. According to the moral credits model, the people will always be aware that their licensing action is questionable. However, they interpret their behaviour as being okay, because they have 'earned' to behave in that way (Merritt et al., 2010). The moral credits model therefore involves the constant adaptation of the self-perception as well as the perception by others.

The moral credential model on the other hand has some distinctive features, differentiating it from the moral credits model. Most importantly, the licensing does also happen on the basis of one's behavioural past, but by means of changing the meaning of the licensing behaviour (Merritt et al., 2010; Miller \& Effron, 2010). Where the moral credits would 'balance' out any negative behaviour (while the behaviour is still regarded as negative but it will not be judged by others due to the previous moral behaviour), the moral credentials ensure license by changing the meaning of a subsequent behaviour in order to avoid it being seen as transgression. Merritt et al. (2010) use the analogy of a
lens to describe the past behaviour. Through this lens current behaviour is looked at and can therefore be disambiguated accordingly. Miller and Effron (2010) put it this way: "If moral credits function like currency that can be used to 'purchase' a license to commit immoral behavior, moral credentials function like a character witness on which one can call to testify that subsequent behavior is not immoral" (p. 126). As an example, indicating support for a black politician while later on hiring a white candidate for a job (Effron et al., 2009) would legitimate this decision because the person has already established that he is not a racist. Here it is not the feeling of entitlement that leads to hiring a white candidate but the conviction that this action is not a transgression. The meaning of the meaning of the action has changed because of the preceding moral behaviour.

Those differences might be a little hard to grasp at first, but Miller and Effron (2010) explain it very clearly by means of an example which will be summarised here in order to ensure an understanding of the two different models: A person volunteering in a soup kitchen gets approached twice for money after having ended her shift. If we take into account the moral credits model than - having gained credits by volunteering - she could reject giving money to the first person but would have to give money to the second (as she already 'used' her credit when she denied money to the first person). By gaining moral credentials however, she could decline giving money to both people without having her reputation suffering (because it cannot be established as transgression). It might even appear as concern for example that those people might have spent the money on alcohol or drugs.

However, it is important to mention that these models are purely theoretical differences. Whether the moral credits or the moral credential model is applied does not have any influence on the act of moral self-licensing itself. They are simply two different ways to explain the same phenomenon. While the moral credits model finds itself in the tradition of self-affirmation theory, the moral credentials model is more based on causal attribution (Merritt et al., 2010). For this paper it was decided to focus on the moral credits model. This however has only implications as to how the moral licensing actions are legitimated.

### 2.1.2. Triggers of moral self-licensing

Based on the theory on moral self-licensing discussed in chapter 2.1. it can be concluded that a moral licensing action is triggered by one or more of in total three reasons. The first (1) reason is that the 'immoral' action is seen as 'good for yourself'. In other words the triggering action is interpreted as being good, having a positive effect for the person displaying moral licensing behaviour by the person himself. By 'good for yourself' is meant that it is good for the person physically as in having a positive effect towards their health. An example would be what Messner and Brügger (2015) in their research demonstrated by means of an experiment that drinking sauerkraut juice stimulates the approval of right wing ideological statements. The study was based on the assumption that eating healthy has a moral dimension and would therefore evoke a similar effect as other moral behaviours. Beside the group who drank sauerkraut juice, two control groups were drinking either something unhealthy - Nestea - or nothing at all. They also conducted a pre-test in which they evaluated how healthy sauerkraut juice was perceived to be. Due to this they were able to assume that the participants of the actual research indeed ascribed health benefits to sauerkraut juice.

This however is the most basic triggering reason and it can be expanded by adding the trigger of self-perception. A second (2) possibility is therefore that they see the action as good for their self-image. It improves the perception, the image they have of themselves. This can be seen in a research from 2009 (Sachdeva, Iliev, \& Medin) where it was found that after writing a self-relevant story including words referring to positive or negative characteristics, participants donated less money if they decided to refer to their positive traits. The researchers accredit this result to a change in the selfconcept which includes moral self-worth. In their experiment they applied those findings to environmentally responsible behaviour. Both of these researches involve no third party - the participant remembers an action by himself or writes a story by himself. These actions therefore cannot benefit anyone else except for the participant who remembers something positive he has done or writes down something positive about himself. Both actions therefore exclusively benefit his own perception of himself.

The first two triggering reasons are very self-centred, focusing on one's own body and the perception one has of oneself. The third (3) reason why moral self-licensing is triggered is when people assume their act will improve the image others have of them. It
therefore has a positive influence on how others might perceive them or they at least expect such an influence. This point can of course also be mixed with the first or second one as an action can be believed to improve the image others have of a person, while at the same time it also improves the image of the person regarding himself. In the domain of political and racial attitudes Effron et al. (2009) found that if people had the chance to state their support for Barack Obama, they afterwards were more likely to favour a white candidate for a job in the police force over a black candidate by describing the job as being better suited for Whites. This result was not replicated when people favoured a White Democrat or when they only saw a photograph of Obama without having the chance to endorse him. The researchers conclude that by stating support for Obama people feel that they have gained moral credentials and therefore have less fear of being judged as prejudiced when favouring Whites over Blacks.

Merritt et al. (2012) take this even a step further by concluding that people intentionally make sure that their morality is known, when they are afraid that their prospective behaviour might be looked at as immoral. This manifested itself in the participants demonstrating a bigger sensitivity towards racism when they feared that in the future a certain action (like choosing a white candidate for a job) of them might be judged as prejudiced or in this case racist. Merritt et al. (2012) describe this prevention as strategically trying to "earn moral credentials" (p. 774). This confirms what Monin and Miller had already found in 2001 when they established that people who had the chance to disapprove of a clearly sexist statement, were afterwards more likely to state their preference to give a stereotypically male job to a man. A similar result was found in a research conducted by Uhlmann and Cohen (2007).

The above provides a good overview over what has been researched so far in regard to moral self-licensing. It has become clear, that the cultural field has not yet been a part of those researches. This thesis can therefore provide a first step to include the cultural field in this theory.

### 2.2. Cultural consumption

As this paper focuses on the possible moral self-licensing effect music might have, it is necessary to establish and demarcate some of the concepts which can provide insight as to why it might be expected that cultural consumption in general could lead to moral
licensing. As has been established on the previous pages, a 'good deed' (in a very broad sense), a moral action, (an altruistic) behaviour, or a positive connoted act needs to take place in order to be able to 'license' a less positive action. Moral self-licensing is therefore dependent on the preceding action. On the next pages, it will be argued as to why the consumption of culture - or more specifically the consumption of music - might be seen as such a 'good deed' which triggers a moral self-licensing effect. It is important to stress again, that these 'good deeds' do not necessarily need to be beneficial to other people or society as a whole (e.g. environmental decisions, altruistic decisions, and so on), but can also only be beneficial towards one self. All three triggering reasons as discussed above will are incorporated in this research. It will either benefit the person physically, it will improve self-perception, or the perception by others (which ultimately benefits the person himself). No one else will profit if a person goes and visits a concert or listens to music (except of course the musicians and other people involved who will profit in a financial way - but the act of consumption itself is not a trigger of a licensing action. Therefore this can be ignored). The 'good deed' in the cultural consumption needs therefore be seen as directed towards the consumer himself (his health, his selfperception, the perception others have of him) and not towards a third person or society.

As was already mentioned, the topics discussed here do not cover the broad concept of cultural consumption as a whole but only look at the aspects relevant for this research. Firstly, the distinction between highbrow and lowbrow culture as well as between classical and popular music is looked at, this is followed by an examination of the effects listening to music in general might have, and therefore why music in general could be considered as having a licensing effect.

### 2.2.1. The valuation of culture

As with everything else, also for culture there are certain values which are ascribed to it, indicating what is good and bad. In European culture in general there exists a longstanding tradition of cultural dichotomies which manifest itself in terms as high and low, difficult and easy, good and bad, or art and commerce. Even though the borders of those categories become increasingly blurred, these distinctions still influence our understanding of culture. Our valuation of culture is informed by these models which
have been passed down through the centuries (Fuhr, 2007). It is important to establish that those values are not intrinsic; they are not innate to culture or music itself but have been defined, developed and assigned by society (Johnson, 2002). They are therefore not "valuable for its own sake" (Beardsley, 1965, p. 1). As these values are socially defined, they are also not fixated. They can change with time and the development of a society.

### 2.2.1.1. Distinction between classical and popular music

As this research wants to look at different types of music in order to find out whether there is moral licensing in the field of music and if the extent differs, it was decided to take into account this broadest and most common division of high and low. Translated into musical forms this means classical and popular music (Middleton, 1993). It adds to the value of the research to be able to distinguish between different musical categories and their moral-licensing effect instead of researching music in general. It enables to draw more differentiated conclusions as the reactions might differ depending on the type of music. However, as this research does not offer the space to explore various very specific musical genres, it makes sense to fall back to the broadest and most radical distinction of classical and popular music.

Explanations on why classical and popular music are to be distinguished are either object related or focus on the use. An object related argument would be that the high arts, and therefore classical music, are more complex than other forms of music. Especially in older definitions there are clear judgements involved in the categorisation of music. Jones and Rahn (1977) for example reference the labels of good and bad which were frequently assigned to classical and popular music. Similarly it is often stated that the high arts are harder to understand than the popular arts. Swanwick (1968) depicts popular music as more easily accessible and generally understandable than what he calls art music. And for Johnson (2002) classical music is "distinguished by a selfconscious attention to its own musical language" (p. 3). Which to understand he claims is not possible without the according knowledge and training. Kramer (2007) agrees with this and states that the purpose of classical music is not to be heard but to be listened to with "focused attention and active involvement" (p. 19).

As a next step these arguments lead to the claim that classical music is art and does not have a determining function opposed to popular music which functions as
entertainment and is classified as commerce (Johnson, 2002). Booth and Kuhn (1990) agree with this view by characterising popular music as being produced for a mass audience and this mass audience at the same time functions as indirect patrons for the popular music. Due to this, the musicians have to take into account the preferences of their audience in order to secure their living. According to them, popular music is therefore often normative due to the market forces. This results in a homogenisation which then means that the musicians have to restrain their creativity and subordinate it to simplification and economic factors. A consequence of this subordination is the dominance of briefer pieces with a focus on text rather than instrumentation. The value of popular music is defined by its commercial success (Johnson, 2002). Many of these same characteristics are also mentioned by Dawe (2015) who then goes on to define popular music as comprising of many genres and being mobile around the world. For him, popular music is a part of the cultural industries and is therefore very much mediated and commercialised.

Following this argumentation means that classical music is not concerned with how it is received by its audience or rather it does not adapt according to the wishes of its audience. Riesman (1950) found that the difference between classical music and popular music is that consumers of classical music identify "works by their composers, whereas popular music fans identified them by their performers" (p. 416). Gans (1974) as well describes the difference between high and low culture as creator-oriented and audience-oriented. In creator-oriented culture it is the audience which subdues itself to the artists' intentions while in audience-oriented culture the artist serves the desires of the audience. This means that in high culture, the higher status is assigned to the creator and in popular culture the higher status is assigned to the performer. This argumentation focuses on the use of the arts instead of the content. However, it is criticised by other scholars due to the fact that the valuation of a certain form of art can change over time - such as for example the development of the opera to a high art form - but Gans' categories are not flexible to accommodate such a change (Kramer, 2007; Zenck, 1982).

Classical music on the other hand is seen as possessing an inherent value as it is more focussed on its inner construction than popular music which mainly focusses on its social use. Moreover, as classical music has stood the test of time and has been valued
and appreciated by generations of ancestors, it simply must be good. This then ensures qualification as cultural heritage (Johnson, 2002).

### 2.2.1.2. Social distinction and the valuation of culture over time

If we look at it from a historical perspective, then the choice of culture was never a matter of taste, but of social position. It was defined what was considered to be appropriate according to the social standing one had (Johnson, 2002). The most famous terms used to denominate a valuation of culture are high culture and low culture. These terms already imply a rank, with high culture indicating the more valuable products of culture as determined by the social elite (Kramer, 2007). The - in the course of the enlightenment - emerging cultural understanding of the middle class was based on a clear separation of the different social classes. This is not surprising, as those who led the discourse on art and culture - and therefore determined what was to be considered good and beautiful - were scholars, academics and artists all of which either belonged or were close to the upper or upper-middle classes (Fuhr, 2007). Since the French revolution however it was tried to define high culture by means of the content of culture itself instead of the descent of its audience. This section focuses on the distinction of high and low art and the changing valuation of it, before the next subchapter will argue if these distinctions still prevail in our current society and what implications this could have for moral licensing.

It has always been assumed that "'great' art and music are intrinsically valuable" (Johnson, 2002, p. 17). In the case of music - although being vague about what this 'great' really contains - it refers to classical or high art music. For the purpose of protecting and supporting this 'great' art publicly funded cultural institutions (e.g. Arts Council, UK or National Endowment for the Arts, US) were created (Johnson, 2002). In accordance, a goal of cultural policy is often to enable equal access to arts and culture. Frequently however the efforts are focused on providing equal access to high culture (Johnson, 2002; Kramer, 2007). The reason for this is that the extraordinary and intrinsic value of high art has been seen as a fact for a long time. This was accompanied by a long-standing belief in the civilising qualities of the arts (Gans, 1974; Johnson, 2002; Kramer, 2007). Therefore, the high arts are claimed to be valuable despite the low valuation some of them get by the general public. Everyone - independent from social
rank or personal taste - should get a chance to access it. Or as Johnson (2002) puts it: "at the heart of this dilemma is the idea that democracy needs protection against itself" (p. 25) or - in other words - against the low arts. As was established above, they form the contrast to the high arts, comprising of everyday culture, commercialised mass culture and popular culture.

The cultural industry with its mass culture never had an easy stance. Theodor Adorno and other proponents of the Frankfurt School considered mass culture as having a bad influence on people who were manipulated into consuming those products. They believed that it would lead to a decline of the critical consciousness of the working masses - as according to them it is passively consumed. They feared that popular or mass culture - due to it not being challenging but pacifying - would make people consent with the existing social order. They claimed that low culture - or as in this paper popular music - would be damaging, and high culture - the classical music in this paper - would have favourable effects (Dooremalen, De Regt, \& Schouten, 2013). In 1941 Adorno made the distinction between serious music and popular music as well. He considered serious music as real, while popular music was false. Consequently, the former is good for you and the latter is not. Adorno was of the opinion that people who listened to popular music were more passive in their listening behaviour and did not interpret (like listeners to classical music would do) but only recognise the music (Adorno, 2002).

Other scholars like Lowenthal or MacDonald agree with Adorno. MacDonald (1953) stated that "mass culture is imposed from above. It is fabricated by technicians hired by businessmen; its audience are passive consumers, their participation limited to the choice between buying and not buying" (p.2). He saw popular music as preying on the cultural desires of the people in order to earn money and to keep up the social status quo. Lowenthal (1950) was of the opinion that "a product of popular culture has none of the features of genuine art, but in all its media popular culture proves to have its own genuine characteristics: standardisation, stereotypy, conservatism, mendacity, manipulated consumer goods" (p. 331). By them, high culture - and within this categorisation also classical music - is considered as the complete opposite: noncommercial, heterogeneous, non-standardised, and putting the needs and wishes of the artist before those of the audience.

Later, Bourdieu stated that "nothing more clearly affirms one's class, nothing classifies more infallibly than tastes in music" (1984, p. 18). This statement makes clear that music can definitely be seen as cultural capital and also as a way to distinguish oneself and one's taste. Interest in the fine arts is therefore almost never treated as the pure interest or taste in this kind of art but much rather as in indication for social status, financial wealth or education (Johnson, 2002; Kramer, 2007). Culture can therefore also be used to demonstrate the social affiliation to a certain class or position.

### 2.2.1.3. Valuation of culture in our current society

All the above shows that a difference in valuation between high and low culture has been made for a long time. The question remains, if this claimed aesthetic and moral superiority of the high arts is still accepted in our current society. If so, then this might indicate that the consumption of high arts of some form would provide the consumer with a feeling of having experienced something which is unobjectionably good and highly valuated in society. It therefore could improve the consumers' self-perception as well as how he thinks he is perceived by society. This classification being still present in people's heads might therefore still influence their behaviour - including moral licensing behaviour. However, it could of course be argued that since the Frankfurt School and the thirty years since Bourdieu's research things have changed and that the barriers between the kind of art consumed and the social status have become penetrable. And with the assigned values to the categories of high and low have been weakened.

Due to changed structures in society, we have a more liberalised and democratised understanding of the arts and the access to music has changed. In our society almost everyone can access any type of music any time by means of for example free streaming services (Fuhr, 2007). This makes it easy to combine Chopin and Coldplay or Puccini and Pink in one playlist. That the division between and the judgements about the two categories of high and low are indeed no longer at order is claimed by many theorists like Gans (1974) or more recently, Fuhr (2007). Other scholars like de Certeau (1997) or Fiske (2010) have demonstrated that the consumption of popular culture does not necessarily mean that the consumer is passive or being manipulated. However, there are also contemporary scholars who still propagate the distinguished position of the high arts. Kramer (2007) for example
emphasises the "active engagement" (p.11) and the "vision of authentic subjectivity" (p. 13) listening to classical music provides us with. He however also states that he does not want to revive the idea that consuming high culture "can make us better people" (p. 14). Another example would be Johnson (2002) who believes in a redemptive function of the high arts. He also references the distinction between art and entertainment and argues that classical music is something we all need. This is also reflected by the goal of democratisation of the arts which is still present in many cultural policy funding strategies. Other consequences of this legacy are also found in educational curricula (Johnson, 2002). Of all the courses in musicology at German universities for the winter semester of 2006/2007, less than 13 percent were dealing with popular music (Fuhr, 2007). And in an entry on Oxford Music Online (Middleton \& Manuel, 2001) popular music is again described as music of various genres which is of less worth and less profound and complex compared to art music.

In 1999 Katz-Gerro researched how different cultural preferences are related to education, gender, race, and class in the United States. She found that people with similar education resemble each other in terms of taste in music. What she also found was a difference between genders. According to Katz-Gerro women are more inclined to consume high culture than men. This distinction was already discovered by Bryson (1996) before Katz-Gerro and is also confirmed by Hoffmann (2007) who also states that the majority of visitors are over 60 years of age with another age gap somewhere between 30 and 40 years. Hamann (2005) comes to similar findings with visitors above 50 being disproportionally overrepresented at classical concerts.

Moreover, when in 2009 Bennett et al. repeated Bourdieu's research in Great Britain, it became apparent that there are still class differences in music taste. Similarly, Hoffmann (2007) found that more than two-third of all classical concert-goers do have a university degree, Despite a much broader access to music by means of new technologies like the internet, these class distinctions still prevail. And if there is still a difference in class taste, then it is likely that there is also a difference to be found in the valuation of the different musical styles and the way in which genres and styles are characterised.

We also still call someone cultured only if he is knowledgeable on the high arts. If he or she knows and appreciates classical music, art, and literature then this must
somehow still designate the person's cultural capital (Fuhr, 2007). This indicates that there is still a perceived division between different kinds of music, art, literature, etc. part of which classifies as somehow 'better' than the rest. Therefore a higher value seems to be assigned to Johann Sebastian Bach than to Justin Bieber. And within the literary field Shakespeare or Molière are considered more cultured than Stephenie Meyer. For this paper it is therefore assumed that the difference in valuation between high and low culture is still anchored to such an extent in our society that the consumption of high arts could result in a moral licensing action due to it being interpreted as a moral action.

### 2.2.2. Definition of classical music

Now that we have heard all about the differences literature provides on classical and popular music, the question still remains on how to define classical music. All the authors mentioned here elaborate in extenso on the characteristics and values of classical music, making their point of what differentiates classical from any other kind of music in general and popular music in particular. All of them however refrain from boiling down their elaborations into a short and clear cut definition. All these scholars abstaining from finding a definition, indicates the difficulty to find a definition of classical music which encompasses all its aspects. Therefore, this will also not be attempted here. Instead a more general overview on what classical music comprises of is provided.

Classical music is often defined as an overarching denotation of the Western art music and the European music tradition in general, starting as early as the Middle Ages and continuing to this present day. This definition therefore encompasses different periods of the European musical tradition such as for example Renaissance, Baroque, Classical, Romantic, and Modern era. The label classical music is also used in other, nonwestern cultures to distinguish older musical traditions from modern music. Examples include classical Turkish music or Indian classical music (Ottoman classical music, 2016; Indian classical music, 2016).

For this paper however, by classical music the European music tradition is meant as all the explanations given above refer to the European tradition of classical music. Classical music is found in different forms and formations such as a sonata with one or
two instruments, chamber music with two to nine instruments and no conductor, a symphony with an orchestra and a conductor or a concerto with orchestra, conductor and a soloist, as well as sacred music with its oratorios, requiems, or passions to name just a few. This short listing makes evident the very broad range and variety of musical forms which are summarised under the notion of classical music.

### 2.2.3. Definition of popular music

As is the case with classical music and its various forms, the term popular music as well encompasses a very broad array of different musical genres. Popular music is hard to define and it always has been. In 1959 Brown stated that "everyone knows what it means and yet no one can define it quite precisely" (pp. 17-18). A few years later Denisoff (1975) compared popular music to a unicorn - everyone is familiar with its appearance but no one has ever seen it. Despite the lack of a generally accepted definition, it is attempted here to create a very basic and broad working definition by keeping in mind the various criteria associated with popular music mentioned above. Jones and Rahn (1977) criticise that many definitions make clear indications about what popular music is and what not. They on the other hand support a more flexible definition where "certain types of music are more or less popular than other types" (p. 80). In agreement with them, the goal of this section is not to find an ultimate definition of what popular music defines but a workable definition. Therefore, - by taking into account all that was mentioned above - for the purpose of this paper it will be assumed that popular music is music which may be assigned to a broad variety of different genres and which finds appeal with a mass audience. Popular music pieces are often shorter than their classical counterparts and most often take the form of a song.

### 2.2.4. Effects of music

The goal of this theoretical section is not to define the effects of music, but to provide an overview over some of the possible effects music might be believed to have by the participants of the experiment due to researches on the topic and the coverage by newspapers and other media. The overview provided here is certainly not complete but does also not strive to be so. It will suffice for this research in order to provide an overview over some of the researches and possible effects of music. The main purpose of
these examples is to illustrate that music could be considered as having physical effects on its listeners. If this is believed to be the case by participants of this research, then this means that they could license an immoral action after listening to music by their conviction that it benefited their health. There are a lot of studies on the effects of music such as for example by Areni and Kim (1993) who looked at the influence background music - either classical or top forty music - would have on shopping behaviour in a wine store. Nevertheless, this section will focus more on research which was looking for positive effects music might have for the consumer themselves.

There are sheer uncountable numbers of research on the effect of music. Often these results or part of the results are picked up and published by the media (Castillo, 2015; Clarkson, 2015; Freeman, 2015; Iacurci, 2015; Ilg, 2015; Martin, 2008; Scheppach, 2011). All these researches and subsequently the coverage by the media leads to familiarising people with the possible effects listening to music could have. The chances of people hearing about this research (when they are not a part of the specific circle of experts) are very slim. The way people learn about such research is means of media coverage. Therefore it is important here that media coverage is included. As otherwise even though a research was conducted it is unlikely that anyone will learn about it outside of the particular circle of experts on the topic. Sometimes what the media reports on these researches is simplified and generalised - which is of course the media's job to provide information which is understood by the broad public sometimes however it can result in an oversimplified or plain wrong reporting on the topic. An example for this would be the infamous Mozart effect. The often cited Mozart effect goes back to a research by Rauscher, Shaw, and Ky (1993) in which they found that the spatial-temporal reasoning of students increased after listening to a sonata by Mozart. The effect however only lasted for about ten to fifteen minutes. It was picked up by various media and often shortened to the message that Mozart was increasing intelligence. Even other physical pain was supposed to be successfully treated (Campbell, 1997). This can then of course lead to a certain perception of the qualities and abilities of music by people.

It cannot be emphasised enough, that for this research it is of no interest if a phenomenon such as the Mozart effect does indeed exist (with or without scientific proof) and if classical or any other kind of music is 'good' for the consumer as a person
or has any positive effects. The only thing that matters is that a person believes that there is such an effect or that music has indeed a positive influence on anything related to that person. This is confirmed if we look back at the example on drinking sauerkraut juice. Participants were not informed of any health benefits of the juice, they simply believed it to be healthy (as was determined in the pre-test).

A research from 2014 (Trappe) has shown that pieces by Johann Sebastian Bach have a relaxing and calming effect on humans and animals alike. Listening to music by the baroque composer had a similar effect on blood pressure and heart rate like beta blockers aiming for the same goal. The effect was already measurable after a listening time of only ten seconds. According to Chafin, Roy, Gerin, and Christenfeld (2004) listening to classical music can lower blood pressure as well as stress levels. Linnemann, Ditzen, Strahler, Doerr, and Nater (2015) found that music can reduce stress in everyday live. This was then also picked up by the media (Ob traurig oder fröhlich [...], 2015). Then there is the research by Lai and Good (2005) which found that music is supposed to improve the quality of sleep in terms of perceived quality, duration and efficiency in older adults. Listening to music also enhances capacity of memory especially for older people or people suffering from dementia or Alzheimer's disease (Braben, 1992; Crystal, Grober, \& Masur, 1989; Cuddy \& Duffin, 2005; Quoniam, Ergis, \& Fossati, 2003). A more practical example of the effect of classical music is described by Kramer (2007). Following the aftermath of September 11, 2001 benefit concerts were given by various institutions such as the Louisiana Philharmonic or the Metropolitan Opera and small groups of the Philharmonic also played in different locations such as for example office buildings. Kramer (2007) describes the effect this had on people as soothing and calming, giving them some consolation and a sense of community where other means failed.

To sum up, according to the research mentioned above, music - both classical and popular - has a positive influence on relaxation, concentration, depression and motivation; it can be stress relieving, helps to improve sleep quality and even affects cognitive abilities and capacity of memory. These are reasons why it might be assumed that listening to music is a good deed towards oneself. This paper does not argue that listening to music does indeed lead to the effects claimed in the studies cited here. It does only argue that by the amount of researches out there on the effects of listening to
music and the coverage in the media, it is very likely that people will have heard of some of those and can therefore use them as a reason to license an immoral action after listening to music.

### 2.3. Research question, sub questions and hypotheses

To sum up, from the overview of previously conducted research on the phenomenon of moral self-licensing in the theoretical framework chapter it becomes clear that moral self-licensing has been researched in various domains, yet never in the domain of arts and culture. This thesis therefore wants to research, whether the phenomenon of moral self-licensing is to be found in the arts and culture field and more specifically in the consumption of music. It also became clear that a licensed - or in other words immoral action does not need to take place in the same domain as where the moral action took place. Therefore this thesis will research whether the consumption of music leads to a compensating action in a field not related to music specifically or arts and culture in general, as well as researching a licensing action in the domain of music consumption itself.

The ultimate goal of this research is to find out whether music can trigger a moral self-licensing effect or not. For the purpose of a research question it will be assumed that the consumption of music indeed can trigger a self-licensing action. The following research question - as was established in the introduction - will therefore be tried to answer in this master thesis:

To what extent does moral self-licensing occur in the cultural domain of classical and popular music?

Next to the research question there are also some hypotheses. By answering these hypotheses it will be easier to find an answer for the overarching research question. Before any conclusions can be drawn as to in what extent moral licensing occurs, it first must be established if moral licensing is to be found at all in the cultural field of music by looking at the tested musical genres and the possible licensing domains. The following hypotheses apply:

H1: Listening to classical music does trigger in-domain moral self-licensing.
H2: Listening to popular music does trigger in-domain moral self-licensing.
H3: Listening to classical music does trigger cross-domain moral self-licensing.

H4: Listening to popular music does trigger cross-domain moral self-licensing. Due to the elaborations on the concepts in the previous chapter and especially the effects of music it is assumed, that moral licensing could be found in both researched cultural domains of classical and popular music. However, it is expected that:

H5: Listening to classical music will trigger a stronger/more explicit licensing action than listening to popular music in both domains.

This due to the expectation that the valuation of music weighs stronger than the possible effects of music the participants might or might not have heard about. Moreover, it is expected that:

H6: The groups listening to music will be more outspoken in their opinion regarding the different moral licensing statements in comparison to the group who did not listen to any music.
We have established in the theoretical section on moral licensing that people gain confidence by their previous moral actions to behave in a way which might be seen as socially or morally less desirable. This includes voicing an opinion.

## 3. Method \& Data (Research design)

This chapter starts with information on the method applied to conducting this research; a laboratory experiment. First there will be a short introduction of the concept of experiments and an argumentation on why a laboratory experiment was chosen over a field experiment. This is then followed by some information on the population and the data sample used for the experiment. Next, the proceedings of the experiment are described in detail. Then the operationalisation of the concepts explained and defined in the previous chapter will be provided. This includes an explanation on the choice of music pieces used for the experiment. After that the questions used in the questionnaire as well as the structure of the questionnaire are addressed. And finally the coding and the analysis process are specified.

### 3.1. Laboratory experiment

To what extent does moral self-licensing occur in the cultural domain of classical and popular music? In order to answer this research question a quantitative and therefore deductive approach will be applied, moving from the general phenomenon of moral licensing to its specific appearance in the cultural field and particularly the field of music. The bases of this research is formed by theory while the hypotheses are all informed by previous research and theory on the topic and will then be tested with newly gathered data. This quantitative approach was chosen, as it is desirable that the outcome of this research is explicit and systematically comparable in order to be able to provide numerical statements on the comparison of different variables with each other. In other words, the data can be transformed into numbers which enables to conduct statistical tests (Bryman, 2012; Raithel, 2008). An experiment seems to be the most suitable method to research the behaviour of the participants and answer the research question stated above, even though experiments are not frequently conducted in sociology according to Bryman (2012). Yet, due to the controlled design, experiments tend to be a strong research method when taking into consideration internal validity. However, it is generally important to diminish the potential influence of other explanations on causal findings. One way to do this is by using a control group, as well as randomly assigning the participants to one group. With experiments often a pre-test is
conducted (Raithel, 2008). Due to the limited time and resources this was not possible for this research. Nevertheless, in the questionnaire there are some questions which might be interpreted as functioning as a kind of pre-test but within the structure of the actual experiment. A detailed explanation on this approach is provided in the section about the questionnaire.

According to the nature of experiments, this one as well involves the manipulation of the independent or experimental variable. Subsequently, the effect this manipulation has on the dependent variables is analysed. Every level of the independent variable - in this research the type of music - is tested in regard to the sample. This research is a single-factor study with music being the only independent variable, applied on three levels: classical, popular, and choice between classical and popular music. For each of these levels there is one experimental group and in addition to that there is a control group.

For this research the possibility of a laboratory or true, as well as a field or quasi experiment have been considered. There are however a number of reasons why it was decided against conducting a field experiment which takes place in a natural social setting: Ensuring the internal validity would be difficult, due to the impossibility to randomly assign participants to experimental and control groups or even having a control group at all. Consequently, the different groups which are being compared to each other would not be equivalent. When conducting a laboratory experiment on the other hand, the researcher has more influence on the settings of the experiment. A laboratory experiment might also be easier to replicate in the future (Bryman, 2012). Moreover, laboratory experiments are advisable when a cause-and-effect relationship is researched as is the case for this paper. Applied to this research it means the consumption of music causing a licensing action.

What needs to be taken into account when conducting a laboratory experiment is that - as for every kind of experiment - an extraneous variable could lead to the experiment being confounded. In order to ensure internal validity, this needs to be prevented. As was already mentioned earlier, a possibility to do so is by using a control group like it is done for this experiment. The participants assigned to this group will not be exposed to any music at all before answering the questionnaire. The danger of an extraneous variable is of course also present in this research. If for example the music
evokes the same feelings within all the participants of a group (e.g. everyone feels annoyed after listening to classical music), then this needs to be taken into account in the analysis as it might have influenced the moral licensing behaviour.

Because the situation of the experiment is constructed, the participants find themselves in an artificial situation which lacks external validity. Results therefore might be difficult to be generalized (Raithel, 2008). However, a broader approach to the population might have a positive influence on this factor as is explained in the next subchapter. Another advantage of conducting the research in an artificial setting is that the participants can be asked immediately after listening to the music - after having the artificial concert experience - to fill out a questionnaire or conduct a task. Therefore there will be no time loss which will make sure that if no moral-licensing effect is to be found, it can be assumed that it is not because of the factor of time. It moreover enables to look for moral licensing when the music style is not chosen by the participant as well as when it is. And finally, if moral licensing is to be found in a laboratory setting, then it can be assumed that it is really the music which triggered this effect and not simply the circumstance of being at a concert.

To sum up, the experiment conducted for this thesis is a laboratory experiment which encompasses that the subjects - in this case the students - are randomly assigned to the different treatment conditions or in other words levels of the independent variable - in this case one of the four groups and subsequently the corresponding musical style.

### 3.2. Population and data sample

Many of the researches which have been introduced in the previous theoretical framework chapter use students as participants. This is also the case for this research. Focusing on students means that the participants will be about the same age and that they all are on a similar level in terms of education. Although having a sample of only students might have a negative influence on the generalizability of the research results, it is the most straight-forward option to conduct the experiment if the resources and time available for this research are taken into account.

Initially, for reasons of validity with all participants being on the same level in terms of background and knowledge regarding their study, only students of the same
study and year (first-year IBACS - International Bachelor Arts and Culture Studies) were approached. This happened by direct as well as indirect means. As a way of directly approaching the students, the research was presented in lectures, offering the students to participate right after class - this in order to make use of spur-of-the-moment decisions as well as to prevent changes of mind - while also providing them with alternative time slots and dates for participation. The students were also approached in a more indirect manner via posts on facebook and a channel message through sinonline, enabling to provide them with more detailed and factual information on the experiments.

Originally, 30 participants per group (a total of 120 students - n120) were aimed at. However, as mentioned above means proved not to be successful enough to attract the amount of participants required for this research, the population was broadened to include first year IBCOM (International Bachelor of Communication and Media) students and later all the students at Erasmus University Rotterdam. The participants were again approached by means of appeals on facebook-pages and in class. In order to provide an incentive for possible participants to join, one book voucher of a value of 20 Euros per group (four vouchers in total) is given away. The by far most successful way of acquiring participants however, was to approach them directly on campus and then immediately bring them to a designated room and conduct the experiment with them. This approach made it possible to conduct the experiment with a total of 84 participants (n84). Students were approached in different buildings, on different days, and at different times. The sample therefore emerged naturally and with an innate randomization. This was of course a result of the broadening of the population to include all students of the Erasmus University Rotterdam. The random sampling might even have a positive influence on the external validity of this research. For practical reasons the experiments did take place on the campus of the Erasmus University in Rotterdam on various dates over a two-week time span.

### 3.3. Proceedings

The 84 participants are divided into four groups: three experimental groups and one control group. Each group consists of 21 students. The participants of one experimental group (A) are assigned to classical music, another (B) to popular music, and the
participants in the third (C) experimental group are able to choose individually if they want to listen to classical or popular music. Afterwards all the participants in the experimental groups individually answer a questionnaire. The control group (D) listens to no music at all but only fills in the questionnaire. The control group is similar to the treatment groups, except for the absence of the independent variable. Although each group consists of 21 students, the experiment is conducted many more than four times with little groups of participants. This takes place on several dates within the time frame of two weeks, until every group has the amount of participants needed.

The allocation of each small group of participants to a musical style is a blind procedure, meaning that the participants are not aware of the level (in this research the style of music) of the independent variable they are assigned to until they are seated in the room where the experiment takes place. This of course is not the case for the participants of the third experimental group (C) who are able to choose between popular and classical music themselves. Due to the way in which the participants for the experiments are approached (as described above), it was not possible to form completely equally compositioned groups in terms of characteristics like studies and gender etc. However, the researcher did take into account gender when assigning a small group to a musical style in order to balance out the representation of the genders in the four groups. In the end, more women than men participated in the experiment, but the proportion of male and female is almost the same in every of the four groups: there are 13 women and 8 men in experimental groups $A$ and $B$ and 14 women and 7 men in experimental group $C$ and the control group.

The experiment itself is divided into two parts. First, each group is separately from the other groups exposed to the musical style assigned to their group for a little over 15 minutes. Fifteen minutes of listening to music should provide a long enough time span to allow for a deeper focus on the music - as would happen in a real concert. After this first part, each person in the group is tested on a moral self-licensing effect by giving them the possibility to conduct a licensing action. The research will look for in- as well as cross-domain moral licensing. In-domain moral licensing is tested by means of five statements in the questionnaire which is answered by each participant individually. The five statements are about the consumption of music like 'all music should be freely available' or 'illegal downloading of music should never be persecuted'.

The complete questionnaire consists of questions regarding demographic information of the participants as well as their valuation and perception of the music they have been listening to and characteristics they ascribe to the audience of the particular musical style. There are also questions on their personal preferences in music and their behaviour regarding the consumption of music. The content of the questionnaire is discussed in more detail in chapter 3.5.

As a way to test if there is a cross-domain effect of moral licensing to be found, each participant is provided with a small cup of counted candy while they are filling in the questionnaire. They are told that this candy is a little thank-you for joining the experiment and listening to the music. In order to ensure that the candy is not simply not eaten because a participant does not like or is allergic to a particular sort of candy, different sorts are combined. There will be gummy candy, mints, chocolate, and liquorice. Each cup will hold the exact same amount and composition of sorts of candy, consisting of eleven pieces in total. None of the candy pieces is wrapped to prevent the packaging being an extra barrier and to provide an as easy as possible access to the sweets as well as to make it less appealing to take the candy home. According to hypothesis (H5) it is assumed that more candy will be eaten by the participants who listen to classical music. The candy is only provided after the group has finished listening to the music in order to make sure that the act of listening to the music and the act of a possible moral licensing action - both regarding the candy and the questionnaire - are clearly separated. This way it can be made sure that cause and effect are not overlapping.

In order to ensure an unbiased result of the experiment, the participants are informed that they participate in a study on music perception and music consumption, the term moral licensing is not used. When a group is gathered in the room where the experiment is conducted, it is again explained to them what the research is about and they are told what type of music they will be listening to. They are asked to just listen to the music without talking to each other or using their mobile phones, laptops etc. After the music has stopped, some information on the questions in the questionnaire is provided, and then the questionnaires and the sweets are distributed. The whole experiment takes about 20 to 25 minutes per group, depending on how fast the participants are with answering the questionnaire. As soon as the participants have
completed their questionnaire, they are free to go and do not have to wait until the whole group is done. The analysis of the data is conducted by means of SPSS. More information on this is provided in chapter 3.6. on analysis and coding.

### 3.4. Operationalisation

### 3.4.1. Moral licensing

As was defined in the previous chapter, moral licensing is triggered by one or more of in total three possibilities. The action preceding the licensing action is either seen as to have a physical beneficial effect on the person conducting it, it is beneficial to the image they have of themselves or they assume that the action has improved the image others have of them, the way others perceive them. As there are two aspects to moral licensing - in-domain as well as cross-domain - both are tested in this research for both types of music. For the in-domain moral licensing action there are five statements provided under point 18 in the questionnaire (Appendix B). On a five-point scale from disagree to agree ( 1 = disagree; 2 = partly disagree; $3=$ neutral; $4=$ partly agree; $5=$ agree ) participants of this research can express their opinion on the statements. According to H6 it is assumed that in case of a moral licensing effect participants will be more outspoken about their view and rather take an opinionated stance than a neutral one. The statements are elaborated on in chapter 3.5. They can all be seen as encompassing a moral component in regard to the consumption of music and the music industry.

For the cross-domain moral licensing effect every participant will receive a cup of sweets while answering the questionnaire. In case of a moral licensing effect (H3/H4) it is assumed that more sweets are eaten on the spot. Sweets were chosen here as they are - nutrition wise - an unnecessary addition to our diet. The sweets used for the experiment all contain sucrose which is a form of sugar the human body has no need for. Moreover, it is well known that eating too much sugar is not healthy and can even cause health problems such as dental caries (Koesling \& Spierling, 2016). Therefore, offering sweets is seen as an adequate mean to present participants with a possibility to conduct a licensing action. In the sense of doing something which is not good for their health. As there is no research yet as to how long after a moral action a licensing action can take place (in other words, does a credit expire?), only the sweets eaten in the room where the experiment takes place are counted towards a licensing action. Moreover, if a
participant takes candy away, we can never be sure of the reason why he does that. He might eat it all as soon as he steps out of the room, he might throw it away, give it to someone else or eat one piece a day for the next eleven days. The point is, as it cannot be determined what happens with the sweets when they leave the room they cannot be counted towards a licensing action.

Summing up, for this research moral licensing is considered as the clear representation of one's opinion even if the opinion is opposed to what would be considered appropriate moral conduct. Next to that, it is also considered moral licensing if a significant amount of sweets is eaten right after listening to the music. The results of the groups who listened to music are contrasted and compared with the results of the group who did not listen to music.

### 3.4.2. The valuation of music

With the statements under point 11 in the questionnaire, it is tested if the reasoning on and the perception of the distinction and characteristics between high and low music as it was described in the theoretical framework is indeed and still experienced the same way by the participants. Or rather: if these prejudices are still prevalent in people's heads. This would then provide an indication as to why a moral licensing action could take place. The statements are explained in more detail in chapter 3.5, but to give an example, one statement is that 'people who listen to the kind of music you just heard are probably well educated'. Participants are then asked to give their opinion from disagree to agree on a scale from one to five (see appendix B).

### 3.4.3. Classical music and popular music

In accordance with the definition on classical and popular music in the theoretical framework, various pieces of music are chosen to represent the defined categories of classical and popular music. An extensive explanation on the choice of music is provided below. For this research popular music functions as a contrasting term to classical music. Nevertheless, as was already mentioned in the theoretical framework, it is difficult to draw a clear line between classical and popular music and there are certainly pieces of music which would fit into both categories. However, for this research it was made sure that the selected pieces would only fit into one category as defined in the
theoretical framework. For each category, music pieces are chosen which clearly match and fit in with the definitions made for these concepts. In order to take into account the commercial and more audience-focused part of the definition about popular music, it was decided that the popular music selection should stem from a chart list which is of course very much focused on commerce and the appeal of a big audience. This also fitted nicely with the intention to form a contrast to the classical music without focusing on only one genre in particular. The lack of a commonly accepted definition on popular music actually proves to be an advantage here, as it enables to have a varied counterbalance to the classical music. The popular music selection (appendix A) now represents a broad array of music.

A lot of thought was put into the selection of the music used for this experiment. However, as it is such as short time span in which the participants listen to music it is not possible to have a well-balanced music selection regarding style, period, composers, mood, and duration and so on. An explanation on the music selection is provided below but can never be seen as completely satisfying as justified propositions for alternative choices can always be made for any of the pieces of music selected. It therefore has to be established here that many pieces of music - besides the ones selected - could have been chosen for this research and might have been regarded as very suitable, but in the end a choice simply had to be made.

### 3.4.3.1. Popular music

The group assigned to popular music, as well as the participants who choose popular music listen to the four songs (appendix A) which made the top of the Dutch charts in the years of 2012 until 2015. These songs are: Cheerleader by OMI, All of Me by John Legend, Wake Me Up by Avicii, and Ai Se Eu Te Pego by Michel Teló. These songs got picked due to their chart positioning which indicates a certain degree of familiarity. It is assumed for this thesis that this positioning at the top of the Dutch charts can be seen as an indicator of the songs commercial success and therefore also its fame and familiarity with a part of the Dutch population as well as with people from other nations - as all of these titles stem from international artists and were successful in other countries as well
(as can be determined when looking at charts of other nations ${ }^{1}$ ). The years of 2012 until 2015 are chosen in order to include rather recent examples of popular music without limiting it to the music of just one single year. The choice ranges back until 2012 because those four songs amount to just a little over 15 minutes and therefore fit the timeframe perfectly. The participants first hear the song from 2015 and then move backwards to 2012.

There are three official charts in the Netherlands: Single Top $100^{1}$, Top $40^{2}$, and Mega Top $50^{3}$. However, all these charts are composed with data gathered from various and often different sources as well as the weighting of the sources often varies depending on the charts (Samenstelling, 2016; Single Top 100, 2016; Uitleg, 2016). Among other factors, these charts incorporate streaming numbers, legal downloading numbers, trends in social media, and sales. The different ways of composing the charts leads to dissimilar results regarding the most successful song of the year of the years 2012 until 2015 depending on which of the charts is consulted. However, for this research the Single Top 100 was chosen to determine which songs are played during the experiment. This simply due to the fact that Single Top 100 is the only one of the three official charts not to include airplay in their calculations (Samenstelling, 2016; Single Top 100, 2016; Uitleg, 2016). This is seen as important as then the charts are a more true representation of consumer taste instead of reflecting the preference of the radio stations. By not making a choice in regard to the popular music, but leaving it to the charts to determine what is played during the experiment also means accepting some limitations regarding the diversity of the music played. All four songs are for example sung by male singers. On the other hand, the singers all have a different nationality (Jamaican, American, Swedish, Brazilian) and the songs belong to varied musical styles.

### 3.4.3.2. Classical music

For the groups listening to classical music the following pieces (appendix A) are chosen: Canon from Canon and Gigue in D Major by Johann Pachelbel (1653-1706), Adagio from Concerto for Oboe and String Orchestra in D minor by Alessandro Marcello (1673-1747),

[^0]and Rondeau from Flute Concerto in $G$ by Franz Anton Hoffmeister (1754-1812). This selection was made due to various reasons. All the selected pieces are quite famous and can be seen as rather 'popular' classical music. In order to be able to let the participants listen to a variety of classical pieces, shorter pieces or rather only particular movements are chosen. The total time of these three pieces amounts to a little over fifteen minutes. One of the selection criteria being that a chosen piece or movement should be listened to in full and not be abridged, meant that quite a few pieces consisting of longer movements had to be excluded. These are the more general criteria, leaving a plethora of possibilities to choose from. With Pachelbel, Marcello and Hoffmeister, Italian as well as German composers are included, being representatives of the Baroque as well as the Classical music era. This was not explicitly anticipated. The selected pieces of classical music are described below in the order of appearance during the experiment.

Pachelbel's Canon (German, Baroque) is played first. This because Pachelbel's canon inspired and influenced many songs in popular music (Works based on Pachelbel's Canon, 2014) for which elements of the piece and often its chord progression were used (Schwarm, 2016). Pachelbel has even been called "the godfather of pop music" (Pop mogul [...], 2002). It is assumed that the usage of parts of the piece for other pieces of music in other musical styles might provide a conscious or subconscious familiarity even if the participants would otherwise not listen to classical music. This was thought to be a good introduction into the listening of classical music In order to keep within the timeframe for the pieces of about plus-minus five minutes, only the Canon will be played and not the Gigue. For the experiment an interpretation by the Paillard Chamber Orchestra conducted by Jean-Francois Paillard is used.

The second piece of music the participants will listen to is the Concerto for Oboe and String Orchestra by Marcello (Italian, Baroque). Again, only one movement will be played, in this case the adagio. An interpretation by Elgar Howarth and the Royal Philharmonic Orchestra with Derek Wickens (oboe) is used during the experiment. And the third and final piece is the Flute Concerto in G by Hoffmeister (German, Classical) of which the participants will hear the rondeau. In the interpretation used for this research the flute is played by Ingrid Dingfelder, accompanied by the English Chamber Orchestra conducted by Laurence Leonard.

The three pieces are played in this order to move from the most famous and popular piece to the least famous piece. As an indication the Klassieke Top 1000 issued by Classic $\mathrm{FM}^{4}$ an internet and digital radio station for popular classical music can be taken into account. According to that list which was composed by means of votes from their audience, Pachelbel's Canon ranges at place seven, Marcello's Concerto finds itself on number 247, and Hoffmeister's Flute Concerto is not represented in the ranking. As was stated above, an equal representation of musical eras and type of pieces was not possible. However, a varied instrumentation was anticipated. Therefore those three pieces were also chosen as together they cover a wide range of instruments (appendix A). Next to the instruments it was also taken into account that there would be a variation in the key. This was done in order to have the participants listen to some 'happier' as well as some 'sadder' pieces to ensure that there would not be one overwhelming feeling which might then function as an extraneous variable and influence the moral licensing result.

### 3.4.4. Effects of music

As was established in the theoretical framework, there are numerous effects researchers ascribe to the consumption of music. To see whether these effects are actually known within the population the different alleged effects of music are integrated in the questionnaire in the form of statements the participants can agree or disagree with. The following effects have been taken into account: relaxation (statement: I think that this kind of music will help to relax), concentration (statement: I think listening to this kind of music while studying will help to concentrate), stress relieving (statement: I think listening to this kind of music will help to overcome stress), cognitive abilities (statement: I think listening to this kind of music will improve cognitive abilities), sleep (statement: I think listening to this kind of music before bedtime will improve sleep), capacity of memory (statement: I think listening to this kind of music will enhance capacity of memory), depression (statement: I think listening to this kind of music will help coping with depression), and motivation (statement: I think listening to this kind of music will increase motivation). These are all positive effects; therefore if a participant

[^1]believes in this effect or has at least heard from this effect, then this might influence his or her perception of the music.

It is not tested in this paper whether the participants have heard of these studies or whether they have read about any effect of music in a news medium. It is only tested in how far they think it likely that such an effect exists - purely based on the assumption that they might have heard about any of these. The reason why it is not asked if they are familiar with these effects, are aware of these effects or have heard of these effects is, that the terms of familiar, aware or having heard of imply that such an effect exists. Implying this might in hindsight influence their perception and valuation of the music they heard and accordingly influence the moral licensing effect. Therefore it was decided to only inquire after their level of agreement with the statements.

### 3.5. Questionnaire

The questionnaire (appendix B) can be regarded as being divided into three main parts. Questions one to five are of purely demographic nature, asking for gender, age, main study subject, nationality, and the kind of area the participant grew up in. The answers to these questions are mainly informative and used to structure and demonstrate the composition of the sample. Questions six to 11 are all aiming at the perception of the music the participants just listened to in the first part of the experiment. The remaining questions 12 to 18 address the personal music preference of each participant as well as their consumption behaviour. In order to gather information about the attitude of the participants towards different statements five-point likert scales are applied.

The order of the questions is fixed; therefore all participants receive the questions in the same order. This is also the case for the control group whose participants are only answering the questionnaire without listening to any music first. They therefore receive a shortened questionnaire from which questions regarding the just heard music are omitted; the order of the questions however is the same. This means that they receive and answer questions one to five and 12 to 18 . Questions six to eleven on the other hand are left out. The questions are arranged in this specific order due to various reasons. The part with questions regarding the music they heard is put first in order to enable the students to answer these questions when they are still aware of their feelings and thoughts during the listening experience. Moreover, since the
students are told that the research is about the perception of music, it makes sense to put these questions first. Next to that, the recommendations that general questions should be asked before specific questions as well as potentially sensitive questions towards the end were taken into account when creating the questionnaire (Bryman, 2012; Raithel, 2008).

Now that we have established the overarching themes of the questionnaire and their position in the questionnaire, let us look at some questions in more detail: For this research it was not possible to conduct a pre-test. Therefore some questions were added to the questionnaire which might be seen as a kind of pre-test within the actual research. The eight statements under point 10 for example refer to the explanations given in the theoretical framework for a possible licensing effect. An example would be the research of Chafin et al. (2004) who found that listening to music can lower stress levels. This was then turned into the following statement: 'I think that listening to this kind of music will help to overcome stress'. With a pre-test these could have been tested before the actual research in order to see for which, if any statements the assumption of the researcher proved to be correct. The results could then have been used in the questionnaire in a more specific way.

This is also the case for the statements under point 11 which could have been asked in a more specific manner in a pre-test in order to see if the perception regarding the classification of high- and lowbrow music is still prevalent in the minds of the people. However, as a pre-test was not a valid option for this research, these questions and statements were - in a more simplistic and straightforward way - integrated in the actual research. They are therefore also covered in the analysis. Even though they do not contribute to the answering of the actual research question and hypotheses, they will enable to draw some conclusions as to whether the theoretical bases on which the hypotheses were formed are correct. If there is a moral licensing effect to be found, then the answer patterns to these statements might provide some insight as to the reasons for this moral licensing.

As the students are provided with an alternative explanation on the main focus of the research in order to avoid a bias in the results, there are some questions in the questionnaire which function as a kind of 'alibi' questions. They are asked in order to make the participants believe that indeed this research is about the perception of music.

This was done in some of the previous research on moral licensing as well (Messner \& Brügger, 2015) and was therefore also applied here. Pure alibi questions are the questions number 6 (giving a description of the music they just heard), question 7 (familiarity with the music heard), question 8 (if they would listen to that kind of music in their leisure time), question 12 (frequency of consumption of various genres in the participants leisure time), question 13 (sources used to listen to music), and question 14 (sources to acquire music). The frequencies on those questions will be reported in the analysis section, and only if those frequencies indicate interesting features, further analysis is conducted.

The use of the remaining alibi questions $(15,16,17)$ is twofold. They are as well used to make the pretended research goal more believable, while at the same time, the answers to these questions are used to link and cross-reference them with the results of the in-domain moral licensing options (the statements under point 18 of the questionnaire). The answers to question 16 for example can be analysed to see if he answer given to those questions can be correlated to the answer given to question 18a. So for example, if people state that they do not pay for music; will they then be more likely to agree with the statement that all music should be freely available? The same goes for question 15 which is linked to question 18b, and question 17 which is linked to the answers to questions 18c, 18d, and 18e. Next to that question 17 offers also a possibility for a licensing statement.

The indications of the participants feelings provoked by the music under point 9 is used to compare those answers with a possible licensing effect. If there exists such a correlation then this can be interpreted as an indication that other explanations than the ones provided by this research are involved when triggering a licensing action. The feelings in question would then function as an extraneous variable.

The aim of the remaining statements under point 18 is to provide a second option (next to the candy) for possible licensing behaviour. The questions on the consumption and especially the illegal acquisition of music are therefore asked in quite a direct and to the point manner. The participants are given the chance to agree or disagree that all music should be freely available, that streaming or downloading does not harm musicians from a financial point of view, that illegal downloading of music should never be persecuted, as well as it is fine to download music illegally.

### 3.6. Analysis

In this chapter an overview is provided over the various statistical tests which are conducted in order to yield the most relevant results.

In this research there is one general independent variable, i.e. music, with four levels, namely: Classical Music (A), Popular Music (B), Choice (Popular) (C), and No Music (D). The dependent variables consist of the number of sweets eaten while filling out the questionnaire as well as the answers to the five questions asked under point 18 of the questionnaire (appendix B).

The analysis begins with an overview over the demographic information provided by the participants. This is done in order sketch a profile of the people participating in this research. Next, a broad overview over the frequencies of all variables is provided. However, there are some clarifications needed regarding the coding of the variable of the sweets. After the participants leave, the sweets eaten from each cup are counted. The number is then entered into SPSS under the according value. If there are 5 sweets gone, then the according value would be 5 as well. However, there are some participants who take their candy away with them without having eaten from it or they eat from it and simply take the rest with them. Now, those cases who take their candy away with them untouched are regarded as not having eaten any candy. This reasoning was defined and explained in the chapter on operationalisation. As these cases are now regarded the same as if the participant had simply left all his sweets in the room, they can be entered in SPSS with the according value of 0 (as in zero sweets being eaten). However, when participants eat part of their candy and take the rest with them, it is not possible to determine how many pieces exactly they have consumed. Therefore, those cases cannot not be entered into SPSS with a meaningful value matching the exact number of sweets eaten. As a result it would not be possible to regard and treat the measure of the variable as scale. In order to make sure that the variable still can be used as scale and that none of the cases have to be left out, it is assumed that the participants consumed the mean amount of sweets eaten in their group and are then assigned accordingly.

For the variables which originated from the statements under points 9,10 , and 11 in the questionnaire, a factor analysis is conducted. This is done in order to bring
them down to a more manageable amount of components which is also more meaningful when conducting statistical analyses later on.

After the frequencies are summarised, pearson's $r$ is conducted in order to look for strength and direction in the relationships between the different scale variables in this paper. It is looked for a correlation between the newly created scale factors under points 9,10 , and 11 and the amount of candy eaten, as well as between the newly created factors and the moral-licensing statements (point 18). The values are interpreted as follows: $0 . . .-0.30=$ weak relationship, $0.30-0.60=$ moderate relationship, $0.60-0.80=$ strong relationship, and $0.80-1.0=$ very strong relationship (J. von Engelhardt, personal communication, December 2014).

In order to also check for possible relationships regarding nominal and ordinal variables, in accordance with various crosstabs a chi square test for independence is conducted. The combinations applied here are gender and number of sweets left as well as gender in combination with the different moral licensing statements. Gender is not part of the actual research question; however as was established in the theoretical framework, women are more likely to consume high arts than men. Therefore, if genders differ in their consumer preference it is interesting to see if this has an influence on their moral licensing behaviour. Moreover the research question asks for the extent to which moral licensing occurs. If this extent differs due to gender then this is an important contribution to answering the research question. Other nominal and ordinal variables which could be tested are questions $6,7,8,12,13$, and 14 (appendix B). However, as was defined under 3.5., further research on these alibi questions is only conducted if the frequencies show some interesting features.

The next analysis conducted is the analysis of variance (ANOVA). The ANOVA ftest allows comparing more than two group means and is therefore applied to the amount of sweets which eaten as well as the moral-licensing statements. If the ANOVA test reveals a p-value which is smaller than alpha (5\%) then subsequently scheffé's posthoc test is conducted.

Finally, various regression analyses are applied. After already having conducted pearson's r which only tells us how much certain variables correlate, now the regression analysis is applied in order to try and see to what extent the dependent variable can be predicted by the independent variable. In this case this means how well can the different
scale variables predict the amount of sweets being eaten as well as how well they predict the answers to the moral licensing statements.

## 4. Results

This results section will look at the outcome of the various statistical analyses of the data as described in chapter 3.6. It will list and summarise relevant findings before discussing them in the next chapter. The chapter starts by looking at the demographic data of the participants which is provided purely for the purpose of giving an overview over how the group of participants was composed and what their characteristics in terms of age, gender, and nationality etc. are. Then there will be an overview over the frequencies of each particular variable following the order of appearance in the questionnaire. All relevant findings from the different analyses ${ }^{5}$ will be added to the variables accordingly. This means that the results of the analyses will not be listed individually one after another but will be incorporated with the variable in question. This is done in order to assemble all the information per variable in one place and therefore provide a more complete overview per variable instead of spreading the information over the whole of the results chapter. The implications for the research question will then be discussed in chapter 5.

### 4.1. Demographics

First, some information about the participants: The sample consists of 84 respondents with a variation of 24 different nationalities among them. With 38 Dutch participants, they formed by far the biggest group at $45.2 \%$. The age of the participants ranged from 18 years old to 46 years old, with a mean of 22 years, a median of 20 , and a mode of 20 years as well with 17 participants being that age. This indicates that the outliers slightly influenced the mean. Of all participants 54 were female and 30 were male which means that women made up $64.3 \%$ of the participants and men $35.7 \%$. The proportion of women and men is very similar in all groups with 13 women and 8 men in groups A and B, and 14 women and 7 men in groups C and D. All of the participants are students of one of 28 different study programmes with IBA (International Business Administration) forming the mode with a frequency of 22 or $26.2 \%$. As far as the area is concerned

[^2]where participants lived, only 6 stated that they lived in a rural area for most of their lives, 29 in a suburban, and 49 in an urban area. The information is summarised in graph 4.1.


Graph 4.1: Overview demographic data

As was defined in the method section, it will be examined whether gender has an influence on the amount of sweets eaten. When examining the crosstab (appendix C, table C1) between gender and the amount of sweets which have been eaten, it becomes clear that in our sample there are no big differences between man and women except for the category of 0 sweets being eaten. Women more often left the full 11 sweets than men did. Over the whole sample, $54.8 \%$ of the respondents ate 0 sweets. For women this was $63 \%$ and for men it was only $40 \%$. Noticing this difference between genders, it was therefore decided to conduct a chi-square test for independence. The H0 being: in the population, there is no relationship between gender and number of sweets eaten. H1: in the population, there is a relationship between gender and number of sweets eaten. Looking at the chi-square test shows that the relationship is not statistically significant and we therefore cannot reject H0. However, if we do not test for the whole sample but for the categories separately, the chi-square test revealed a significant difference for group $B$ in the numbers of sweets eaten and gender, $\mathrm{X}^{2}(4, \mathrm{~N}=21)=11.81, \mathrm{p}<.05$, with men having eaten more sweets. For group B we therefore can reject H0. Still, we have to assume that in the population there is no significant relationship between gender and the number of sweets eaten.

A chi-square test for independence was also conducted for the relationship between gender and the five moral licensing statements. The H 0 regarding gender and moral licensing statements is as follows: in the population, there is no relationship between gender and any of the moral licensing statements. H1: in the population, there is a relationship between gender and each of the moral licensing statements. Of course, the chi-square test for independence was conducted five times separately - once for each statement. The H 0 and H 1 only mention the moral licensing statements in general, in order to avoid having to write down the same H 0 and H 1 separately for each statement. However, only within group C there is a significant difference to be found with women being more outspoken in their opinion in regard to the statement that illegal downloading is okay: $\mathrm{X}^{2}(4, \mathrm{~N}=21)=11.10, \mathrm{p}<.05$. H0 therefore can only be rejected for this particular statement in group C. Overall however; there is no significant relationship to be found between gender and the moral licensing statements which means that H 0 cannot be rejected.

Therefore we have to conclude that even if women are more favourable towards the high arts than men as was stated in the theoretical framework, this difference in preference has no influence on a possible moral licensing effect.

### 4.2. Perception of the music heard

The first question regarding the perception of the music wanted to know whether the participants were familiar with the music they had listened to during the experiment. In group A none of the participants was familiar with all of the music they heard, while in group B and C a majority of $90.5 \%$ and $85.7 \%$ knew all of the music. However, also in group A, a majority of $76.2 \%$ was familiar with at least a part of the music. In general it can be concluded that participants are more familiar with the genre of popular music than the genre of classical music. An overview over all the percentages is provided in appendix C (table C2). As was explained in chapter 3, this question was included as an alibi question. However, as there is this difference in familiarity it appears to be interesting to see if this difference also reflects itself in the moral-licensing behaviour. If so, this variable would help to answer the research question in terms of the extent to which moral licensing occurs as well as provide a possible explanation as to when a licensing action takes place. Therefore some further analysis is carried out.

In order to test the relationship between familiarity and the amount of sweets eaten a chi-square test for independence was conducted. For the whole sample there is a significant difference, $\mathrm{X}^{2}(20, \mathrm{~N}=63)=43.88, \mathrm{p}<.05$. In the individual music categories, only for group C there is a significant difference $\mathrm{X}^{2}(2, \mathrm{~N}=21)=10.04, \mathrm{p}<.05$. H0 can therefore be rejected for both of these cases, but not for each individual case. The relation of familiarity and the amount of sweets eaten was measured by spearman's correlation and turned out to be a strong, positive relationship. Familiarity was also tested regarding its relationship with the moral licensing statements. However, there are no significant relationships.

To sum up, at first glance there appeared to be a significant relationship between the familiarity with music and the amount of sweets eaten. Yet, when taking a closer look and analysing all three groups separately, it turns out that there is only a significant relationship within group C which means that familiarity with the music cannot be used as a factor to explain moral licensing behaviour.

The next question wanted to know whether the participants would listen to similar music in their leisure time (appendix C, table C2). Although the participants of group A were less familiar with classical music, still almost $50 \%$ of them would listen to it in their leisure time. Whereas in group B and C only two third of the participants would do so even though they had such as high percentage of familiarity with the music. It is also interesting that the distribution in group $B$ and $C$ is exactly the same.

### 4.2.1. Feelings while listening to the music

It was also inquired after the feelings the participants had while listening to the music. The participants were asked to rate whether they experienced a certain feeling on a scale from 1 to $5(1=$ disagree $/ 2=$ partly disagree $/ 3=$ neutral $/ 4=$ partly agree $/ 5=$ agree; see questionnaire, appendix B). Table 4.1 provides an overview over all the means, medians, and modes in the different groups for the different feelings. It becomes evident that none of the groups were feeling either angry, sad, stimulated, or stressed after listening to their particular music selection. But there are also differences between the groups: while the participants of group A felt calm and relaxed after listening to classical music, participants of group B felt relaxed as well, but also happy. Group C agreed on feeling happy but rather than relaxed, the popular music made them feel
excited. Classical music therefore seems to have more of a calming, and popular music more of an uplifting effect. It is interesting though that the participants of group B and C - who were both listening to the same popular music - did not seem to experience the exact same feelings. Generally, listening to music evoked positive feelings regardless of the musical style.

Table 4.1: Feelings during music consumption

|  | 安 | $\frac{E}{\pi}$ | \# \# x x | $\begin{aligned} & \hat{2} \\ & \frac{\hat{2}}{\mathbf{7}} \\ & \frac{1}{\mathbf{7}} \end{aligned}$ |  | ت |  | " |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Classical (A) |  |  |  |  |  |  |  |  |
| Mean | 1.33 | 3.90 | 2.24 | 3.10 | 4.14 | 1.86 | 2.76 | 1.38 |
| Median | 1 | 4 | 2 | 3 | 4 | 2 | 3 | 1 |
| Mode | 1 | 4 | 3 | $3 / 4$ | $4 / 5$ | 1 | 3 | 1 |
| Popular (B) |  |  |  |  |  |  |  |  |
| Mean | 1.19 | 2.95 | 3.43 | 4.05 | 3.43 | 1.48 | 2.76 | 1.48 |
| Median | 1 | 3 | 3 | 4 | 4 | 1 | 3 | 1 |
| Mode | 1 | 3 | $3 / 4$ | 4 | 4 | 1 | 2 | 1 |
| Choice (C) |  |  |  |  |  |  |  |  |
| Mean | 1.20 | 2.70 | 3.45 | 3.90 | 3.10 | 1.30 | 2.90 | 1.45 |
| Median | 1 | 3 | 4 | 4 | 3 | 1 | 3 | 1 |
| Mode | 1 | 3 | 4 | 4 | $2 / 4$ | 1 | $3 / 4$ | 1 |

As was mentioned in the analysis section in the previous chapter, a factor analysis with varimax rotation was conducted for these feelings (8 variables), creating three new factors (appendix C, table C3) consisting of the following clusters: (feelings1) excited, happy, stimulated / (feelings2) calm, relaxed / (feelings3) angry, sad, stressed. Feelings1 could therefore be summarised as uplifting, feelings2 as calming, and feelings3 as negative. For all other analyses regarding the feelings, these three new variables are used. This applies for every variable for which a factor analysis was conducted.

As was defined in the method chapter, the data on the feelings was tested for relationships regarding the moral licensing statements as well as the amount of candy eaten by means of pearson's r. This in order to make sure that a possible moral licensing effect is not influenced by the feelings the participants had while listening to the music. If there would have been one particular feeling everyone had felt, then feelings could have been considered as extraneous variable which would distort the result of the research. If they all feel the same then this might mean that the feeling has something to do with the moral licensing effect. There are however only weak or moderate relationships to be found and often they are not significant (appendix C, table C4). The weak relationships are to be ignored here, and the moderate relationships are only mentioned if they are significant at the 0.05 or 0.1 level. In group A there is a moderate, positive relationship to be found between feelings3 and the statement that music should be freely available ( $\mathrm{r}=.402, \mathrm{p}<.1$ ), that it is okay to download music illegally ( $\mathrm{r}=.372$, P <.1) as well as a moderate, negative relationship in regard to the amount of sweets eaten ( $\mathrm{r}=-.379, \mathrm{p}<.1$ ). In group $B$ there were less moderate relationships to be found. For feelings2 there is a moderate, negative relationship with the statement that downloading harms musicians ( $\mathrm{r}=-.374, \mathrm{p}<.1$ ) and a positive one with the statement that it is okay to download music illegally ( $\mathrm{r}=.382, \mathrm{p}<.1$ ). For group C there were no significant relationships found.

Overall it can be concluded that within group A the most relationships are found. It is also noticeable that only between feelings2 and feelings3 there are moderate relationships to be found in regard to the moral licensing statements and the number of sweets eaten. Experiencing calming or negative feelings therefore seems to have a bigger effect on a possible licensing action than uplifting feelings have. However, the relationships are very varied per group. This indicates that it is not likely that feelings have to be considered an extraneous variable.

Pearson's r has not proven to show any strong relationships; nevertheless a regression analysis for the same categories was conducted. However, as was to be expected, none of the tested variables was able to predict the dependent variable. In every tested case, more than $80 \%$ of the variance could not be accounted for when only considering the independent variable in question. Moreover, the effect of feelings1, feelings2 and feelings3 on the amount of sweets eaten and on the moral licensing
statements was only either weak or moderate. It therefore can be concluded that feelings experienced while listening to music are not determinant for a moral licensing action. Therefore feelings can be disregarded as a possible extraneous variable in this research. If a licensing effect is to be found, we now can be more confident that it is due to the music and the values assigned to it (as was argued in the theoretical framework) rather than due to feelings felt while listening to the music.

### 4.2.2. Statements on possible effects of music

Regarding the statements on the effects music might have the same scale as with the feelings applied. Here (table 4.2), it is interesting that both, the participants of group A and B who were not able to choose the musical style they wanted to listen to are more likely to think that the music they heard will have a relaxing effect on listeners. Groups B and C state that music will help to relieve stress and to overcome depression, but again, there is no complete consistency between groups B and C even though they listened to the same music. The participants of group C for example are the only ones who seem to believe in a motivational effect of the music they listened to. However, neither the participants of group B nor C seem to think that music will help with concentration issues, improve cognitive abilities, and improve sleep or the memory, while group A takes a neutral stance on all these statements. It appears that some of the effects researchers ascribe to music (chapter 2.2.4.) are indeed believed to be true. Therefore a correlation between these variables and a moral licensing effect would confirm the argumentation as made in the theoretical framework that being aware of such health benefits can evoke a licensing effect based on trigger 1.

The factor analysis conducted with this data (again, 8 variables and varimax rotation) resulted in two components (appendix B, C3). The first component (effects1) comprises relaxation, concentration, cognitive abilities, improvement of sleep, and capacity of memory. The second new component (effects2) includes overcoming stress and depression, as well as increasing motivation.

Table 4.2: Possible effects of music

|  | $\begin{aligned} & \stackrel{x}{\tilde{\sigma}} \\ & \stackrel{\rightharpoonup}{d} \\ & \hline \end{aligned}$ |  | $$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Classical (A) |  |  |  |  |  |  |  |  |
| Mean | 4.00 | 3.05 | 3.10 | 2.90 | 2.86 | 2.38 | 2.57 | 2.52 |
| Median | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| Mode | 4 | 4 | $3 / 4$ | 3 | 4 | 3 | 2 | 3 |
| Popular (B) |  |  |  |  |  |  |  |  |
| Mean | 3.33 | 1.67 | 3.48 | 2.33 | 1.86 | 2.05 | 3.38 | 3.29 |
| Median | 4 | 1 | 4 | 2 | 1 | 2 | 4 | 3 |
| Mode | 4 | 1 | 4 | 2 | 1 | 1 | 4 | 2/3/4 |
| Choice (C) |  |  |  |  |  |  |  |  |
| Mean | 2.81 | 1.33 | 3.48 | 1.86 | 1.81 | 2.05 | 3.38 | 3.57 |
| Median | 3 | 1 | 4 | 2 | 1 | 2 | 3 | 4 |
| Mode | 4 | 1 | 4 | 1 | 1 | 1 | $3 / 4$ | 4 |

For the effects in regard to the moral licensing statements and the number of sweets eaten, pearson's r was also determined. Here again, except for one strong, there were only weak and moderate relationships to be found. In group A there was a negative relationship found between effects1 and the statement that music should be freely available ( $\mathrm{r}=-.435, \mathrm{p}<.05$ ) and a moderate, positive relationships between effects1 and the statement that streaming harms musicians financially ( $\mathrm{r}=.405, \mathrm{p}<.1$ ). In group B there are two moderate, positive relationships found regarding effects1 ( $\mathrm{r}=.503 . \mathrm{p}<$ .05) well as effects2 ( $\mathrm{r}=.485, \mathrm{p}<.05$ ) and the statement that it is okay to download music illegally. A third moderate, negative relationship is between effects1 and the statement that illegal downloading harms musicians ( $\mathrm{r}=-.393, \mathrm{p}<.1$ ). In group C there is the only strong, positive relationship of all the pearson's $r$ conducted: between effects2 and the statement that it is okay to download music illegally ( $\mathrm{r}=.681, \mathrm{p}<.05$ ).

Here as well a regression analysis was conducted. The results however were similar to those described in 4.2.1. This means that the argumentation given in the theoretical framework that believing in one of those health benefits could provoke a moral licensing effect due to it fitting trigger 1 has to be questioned as there is only one strong relationship in group C , the rest is either moderate or weak and there is no pattern to be discovered over all the different groups.

### 4.2.3. Characterisation of an audience

Concerning the statements characterising a possible audience, all groups take a rather neutral stance to most of the statements. There are however some statements, on which the groups take a more explicit and varied stance. The participants of group A partly agree with the statement that people who listen to classical music are well educated and older than 35. According to the participants of group B and C, people who are younger than 35 and are living in the city are likely to listen to the kind of music they themselves listened to. The participants therefore agreed on an age related distinction in regard to music preferences (table 4.3). This confirms the characterisation as stated in the theoretical framework. Similar to the previous questions, the same scale of one to five, from disagree to agree was employed.

This is the third and final category for which a factor analysis was conducted. This time with 9 variables and a varimax rotation. Again, two new factors (appendix C, table C3) were created. One of them (people1) consists of economising, earning a lot of money, living in the countryside, working in high-end jobs, and living in the city, and the other one (people2) contains older than 35 , younger than 35 , low educated, and well educated.

Regarding these variables, the only moderate relationships were found within group A and C (appendix C, table C4). In group A there is a moderate, negative relationship between people1 and the statement that there should be no persecution for illegal downloading ( $\mathrm{r}=-.403, \mathrm{p}<.1$ ) and a moderate, positive relationship between people2 and the statement that illegal downloading is okay ( $\mathrm{r}=.508, \mathrm{p}<.05$ ). Within group C there is a moderate, positive relationship between people 2 and harmful downloading ( $\mathrm{r}=.439, \mathrm{p}<.05$ ) and between people 2 and the amount of sweets eaten there is a moderate, negative relationship ( $\mathrm{r}=-.518, \mathrm{p}<.05$ ).

As was done for the feelings variables and the effects variables, a regression analysis was conducted. Here however, $39.8 \%$ of the variance in the amount of sweets eaten can be explained by people2 with a strong, negative effect ( $-.631, \mathrm{p}<.05$ ). Suggesting that the more people agreed with the characteristics described in the statements of component 2, the more likely they were to eat more sweets. In the theoretical framework it was discussed that the different valuation of classical and popular music might still be prevalent in people's minds. This then could be a possible explanation for moral licensing relating to trigger 2 and 3 . It can be concluded that this differentiation between high and low or classical and popular and - at least partly - the difference in valuation has not dissolved yet.

Table 4.3: Characteristics of a possible audience

|  |  |  |  |  |  | $\begin{aligned} & \text { En } \\ & \text { 苟 } \\ & \text { Ey } \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Classical (A) |  |  |  |  |  |  |  |  |  |
| Mean | 3.95 | 2.00 | 2.29 | 4.29 | 3.05 | 2.62 | 3.05 | 2.76 | 2.43 |
| Median | 4 | 2 | 2 | 4 | 3 | 3 | 3 | 3 | 3 |
| Mode | 4 | 2 | 2 | 4 / 5 | 3 | 3 | 3 | 3 | 3 |
| Popular (B) |  |  |  |  |  |  |  |  |  |
| Mean | 2.52 | 2.76 | 3.86 | 2.24 | 2.05 | 2.48 | 2.05 | 3.19 | 2.29 |
| Median | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 3 | 2 |
| Mode | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 3/4 | 3 |
| Choice (C) |  |  |  |  |  |  |  |  |  |
| Mean | 2.71 | 2.86 | 4.24 | 2.10 | 2.57 | 2.71 | 2.19 | 3.38 | 2.33 |
| Median | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 4 | 2 |
| Mode | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 4 | 2 |

### 4.3. Consumption of music

The third part of the questionnaire is concerned with the consumption of music, starting off by inquiring after the frequency by which the participants consume different musical genres. As can be seen in the questionnaire (appendix B) for this question there are four categories consisting of often ( $=1$ ), frequently ( $=2$ ), rarely ( $=3$ ), and never ( $=4$ ). An overview over all the medians and modes per category and per group can be found in appendix C (table C5). As the measure is ordinal, means cannot be reported here. Musical styles with a value of 3 (neutral) are only reported if the other value is a 1 or 2 . Within group A, there are three genres they listen to either often or frequently. Dance, pop, and rock. Within group $B$ there is a more varied range of musical styles compared with group A. The majority of group B likes to listen to dance, hip-hop, pop, rap, RnB, and Rock. The participants of group C listen to classical, dance, hip-hop, pop, RnB, and rock. And finally, the participants of group D listen to dance, hip-hop, pop, rap, and RnB.

This means that the only musical genres which are listened to often or frequently by the participants of all the groups are dance and pop. The difference in preference per group is interesting as the participants were randomly assigned to their group. Yet, also the amount of listings differs per group. The participants of group A listed the most limited range of musical styles by naming only three, while those of group D mentioned five and the participants of groups B and C selected six each. It is noticeable that only the participants of group C - the only group whose participants were to choose their musical style and who decided univocally on popular music - indicate that they frequently listen to classical music. One could take a leap here and argue this to be a moral cleansing action. As they decided against classical music in the first place, they balanced this out when given the chance to state that they do listen to classical music in their leisure time.

The means by which the participants consume their music are the same over all the groups (appendix C, table C6). The majority uses either the internet which includes using different means such as YouTube or streaming services or an electronic device such as a smartphone, laptop or computer on which the music is available in the form of downloads or digital contents. Regarding the sources from which the participants acquire their music, the majority of the participants of all groups do not pay for music (appendix C, table C6).

The next question inquired after the use of streaming services on a scale from one to five (exclusively (1), the majority (2) of the time, equally (3) often as other means, occasionally (4), or never (5)). The mode in all groups is 2 , which means that the participants use streaming services the majority of the time when they consume music. In all groups, except for the participants of group D, the majority uses streaming services either exclusively or the majority of the time. The order of the categories regarding how often participants use streaming services is different for each group, therefore no clear pattern is to be identified. In order to see if there was a relationship between the use of streaming services and the answer given to the moral licensing statement about streaming, a Spearman's correlation was conducted (as this is an ordinal variable, conducting pearson's $r$ was not possible). However, there is only a weak, positive relationship.

Like for the question above, also for the question whether participants were more likely to use a free service instead of paying for music online there was a scale from one to five indicating their likelihood (very likely (1), quite likely (2), moderately likely (3), slightly likely (4), not likely (5)). The majority of the participants of all the groups are very likely to use a free service. All the groups have in common that the percentage of people decreases with every higher number of the scale. Here as well a Spearman correlation was carried out in order to test the relationship between this variable and the moral licensing statement that all music should be freely available. The relationship here is weak and negative.

On the subject of whether participants download legally or illegally there is again no clear pattern to be identified in the answers. The mode of groups A and B is 2 (more illegal) but for groups C and D on the other hand, the mode is 5 , meaning that they do not download at all. The distribution over the categories differs per group as well. Spearman's correlation was conducted for this variable in relation to the three moral licensing statements regarding downloading. However, also here the relationships turned out to be weak. The possibility of this question being used as a licensing action did therefore not happen.

It has to be concluded that none of the answers to the three alibi questions as defined under 3.5. can be correlated to the answers given to the moral licensing statements under point 18 in the questionnaire.

### 4.4. Moral licensing statements

The frequencies of these statements (table 4.4) will be looked at in more detail, as they are the in-domain moral licensing possibility. Here again, the five-scale categorisation from disagree to agree applies. Group A remains quite neutral on the question whether all music should be freely available with a mean, median and mode of 3 , while group B and C partly disagree with a mean, median and mode of 2 , and group $D$ tends to agree with a median of 4 and a mode of 5 . On the question whether streaming harms musicians financially, the overall stance of all the groups is either neutral or they slightly disagree. The groups are also in agreement on the question whether downloading harms musicians financially. Here however in contrast to the streaming question, they all partly agree with the statement. Regarding the statement that illegal downloading should never be persecuted, none of the groups seems to have an opinion on the topic as they take a neutral stance. The same goes for the last statement that downloading illegally is fine which is regarded neutral by group B, C, and D. Group A tends to partly agree with the statement.

It was defined as a hypothesis (H6) that the groups who had listened to music (A, B, C) would be more outspoken in their opinion regarding the different statements in comparison to the group who had not listened to any music (D). This hypothesis however cannot be confirmed by the data of this research: an ANOVA was conducted where the H0 states that in the population all four group means regarding the five different moral licensing statements are equal, $\mathrm{H} 0: \mu_{1}=\mu_{2}=\mu_{3}=\mu_{4}=\mu_{\mathrm{k} .}$. 1 : in the population, the four groups do not have all an equal mean within the five different moral licensing statements. The analysis resulted for all five statements in an obtained $p$-value which is bigger than alpha ( $\mathrm{p}>.05$ ). H0 can therefore not be rejected and the scheffé's test becomes redundant.

To sum up, it must be concluded that there is no in-domain moral self-licensing after the consumption of either classical or popular music. H 1 and H 2 therefore cannot be confirmed. In chapter 3.4. it was defined that it would be seen as an indication of moral licensing, if the groups who had listened to music ( $\mathrm{A}, \mathrm{B}, \mathrm{C}$ ) would state their opinion more openly. This would then translate into them completely agreeing or disagreeing with the statements as opposed to the participants of group D who were expected to keep a more neutral stance. This hypothesis (H6) was based on the
theoretical framework in which it was defined that after conducting a moral action, people are less afraid to state their opinion. The frequencies of the five statements however do not reflect this hypothesis and the ANOVA confirms that there is not enough variance in the answering patterns. As there is no moral licensing to be found, it is not surprising that no relationships and correlations with other variables regarding the moral licensing statements were discovered within in the questionnaire.

Table 4.4: Moral licensing statements

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Classical (A) |  |  |  |  |  |
| Mean | 3.14 | 2.95 | 3.86 | 3.00 | 3.33 |
| Median | 3 | 3 | 4 | 3 | 4 |
| Mode | $2 / 3$ | 3 | 4 | 2 | 4 |
| Popular (B) |  |  |  |  |  |
| Mean | 2.81 | 3.05 | 3.81 | 2.95 | 3.24 |
| Median | 2 | 3 | 4 | 3 | 3 |
| Mode | 2 | 2 | 4 | 3 | $3 / 4$ |
| Choice (C) |  |  |  |  |  |
| Mean | 2.57 | 2.90 | 3.95 | 3.29 | 2.86 |
| Median | 2 | 3 | 4 | 3 | 3 |
| Mode | 2 | $2 / 4$ | 4 | 3 | 3 |
| No music (D) |  |  |  |  |  |
| Mean | 3.48 | 3.19 | 4.14 | 2.95 | 2.67 |
| Median | 4 | 3 | 4 | 3 | 3 |
| Mode | 5 | 3 | 5 | 3 | 3 |

### 4.5. Amount of sweets eaten

From this data it can be concluded that the groups listening to popular or no music at all ( $B, C, D$ ) ate at least six times less sweets than the participants of group A who listened to classical music. The total amount of pieces of sweets per group was 231 as there were four groups with 21 participants, each of which receiving 11 sweets. Within group A there were a total of 126 pieces of sweets gone which means $54.55 \%$ of all the sweets were eaten. In group B 21 sweets or $9.09 \%$ were eaten. The participants of group C ate 6 sweets, which are $2.60 \%$. And finally, 19 sweets were eaten by the participants of group D. That is a percentage of 8.23 . Table 4.5 provides an overview over the distribution of the sweets eaten.

Table 4.5: Amount of sweets eaten

| Sweets eaten | Classical (A) |  | Popular (B) |  | Choice (C) |  | None (D) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | \% | N | \% | N | \% | N | \% |
| 0 | 3 | 14.3 | 12 | 57.1 | 19 | 90.5 | 12 | 57.1 |
| 1 |  |  | 4 | 19.0 |  |  | 5 | 23.8 |
| 2 |  |  | 2 | 9.5 |  |  | 1 | 4.8 |
| 3 |  |  |  |  | 2 | 9.5 | 1 | 4.8 |
| 4 |  |  | 2 | 9.5 |  |  | 1 | 4.8 |
| 5 | 2 | 9.5 | 1 | 4.8 |  |  | 1 | 4.8 |
| 6 | 8 | 38.1 |  |  |  |  |  |  |
| 7 | 3 | 14.3 |  |  |  |  |  |  |
| 8 | 2 | 9.5 |  |  |  |  |  |  |
| 9 | 1 | 4.8 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |
| 11 | 2 | 9.5 |  |  |  |  |  |  |
| Total | 21 | 100 | 21 | 100 | 21 | 100 | 21 | 100 |

Similar to the moral licensing statements, for the amount of sweets eaten an ANOVA was conducted. The H0 therefore states that in the population all four group means regarding the amount of sweets left are equal, $\mathrm{H} 0: \mu_{1}=\mu_{2}=\mu_{3}=\mu_{4}=\mu_{\mathrm{k}}$. H 1 : in the
population, at least one group mean differs from the other group means. The analysis showed that the obtained p -value is smaller than alpha ( $\mathrm{p}<.05$ ), we therefore reject H 0 . This means that we cannot assume that in the population all four groups ate the same average amount of sweets. As a result of rejecting the H 0 , a post-hoc test needs to be conducted in order to gain information on which means differ significantly from the others. For this research, Scheffé's test was used. This resulted in the following: in our sample, people who listened to classical music ate more sweets than people who listened to different or no music at all. This difference is statistically significant ( $\mathrm{p}<.05$ ). Therefore it can be concluded that people who listened to classical music ate significantly more sweets than people who listened to popular music or people who listened to no music.

In regard to H 4 it must be concluded that the hypothesis cannot be confirmed. It was defined that the amount of sweets eaten would indicate the degree of moral licensing. Therefore it was expected that the groups listening to music would eat more sweets than the group who did not listen to music. However, there is no significant difference between groups B, C, and D. There is no cross-domain moral licensing triggered by listening to popular music. H3 on the other hand can be confirmed. Listening to classical music does indeed trigger a cross-domain moral licensing effect.

Summing up the above means that there is neither in-, nor cross-domain moral licensing to be found after the consumption of popular music. It is of no influence whether the musical style was assigned or whether popular music was the style chosen by the participants. The assumption that popular music would trigger a moral licensing effect therefore has to be discarded. H5 stated that listening to classical music would trigger a stronger or more explicit licensing reaction than listening to classical music. Regarding cross-domain licensing this hypothesis can be considered true. Classical music did trigger a stronger licensing reaction compared to popular music which resulted in no licensing action at all. Moving on, there is also no in-domain moral licensing found after listening to classical music. The only moral licensing is found crossdomain after the consumption of classical music.

In conclusion it can be said that moral self-licensing is not triggered at all by popular music. Therefore, even if for groups B and C moderate and even one strong relationship between the various statements regarding the effects of music or the
characteristics of its listeners and the moral licensing statements or the amount of sweets eaten were found, these relationships are not relevant as there is no moral licensing to be found concerning group B or C. In-domain moral licensing was also not evoked by listening to classical music. It can be added that there is no correlation between the three alibi questions 15,16 , and 17 and the answers given to the moral licensing statements, but even if there was, it would be of no consequence, as no moral licensing action was found in regard to the in-domain moral licensing statements. It must therefore be established that in this research only classical music triggered crossdomain moral licensing. This cross-domain moral licensing effect is neither influenced by the familiarity with the music nor by the gender of the listener. Furthermore, feelings felt while listening to the music also have no influence on the licensing effect and can therefore be excluded as possible extraneous variable. Moral self-licensing therefore does occur in the domain of classical music in the form of cross-domain licensing to the extent that at least six times and up to 21 times more sweets are eaten (the licensing action in this particular case) compared to the categories of popular music and no music at all.

## 5. Conclusion

The topic of this research was chosen out of pure curiosity. The intention was therefore very simple - finding out whether moral self-licensing could be found in the domain of culture and more specifically, whether the consumption of music triggered such an action. The appeal of the project was the newness of the concept and the opportunity of not just looking at a small aspect of an otherwise already broadly covered topic. This subject offered the possibility of researching if a relatively young concept is found in a domain where it has never been researched before.

At the beginning of this research a literature review was conducted. That the concept of moral self-licensing had never before been researched in the domain of culture meant however, that there was no existing literature specifically relating to culture or cultural consumption and moral licensing. Therefore the existing literature on research in other domains was analysed in order to figure out and define the different reasons for moral self-licensing. Three triggers were identified: the preceding action is considered to have a positive effect physically, to enhance self-perception or the perception by others. These three triggers were then reflected in the argumentation as to why it was expected to find moral self-licensing in the domain of music.

The concepts found which could indicate that self-licensing might exist in the domain of music were the valuation of music and its alleged beneficial health effects. It was assumed that if certain valuations of classical and popular music still existed in the minds of the people, then it could lead to an improvement of their self-perception when consuming music as well as they might expect that other people's perception of them improves. The same goes for the health benefits which have been researched in regard to music consumption. If people are aware of these effects then they could consider the consumption of music as an action which has a positive effect on their health.

To test all the hypotheses a laboratory experiment with four groups and a total of 84 respondents was conducted. The experiment consisted of listening to some music and answering a questionnaire afterwards while being given a selection of eleven sweets. Five statements in the questionnaire regarding the consumption of music and the music industry were used to measure the degree of in-domain moral self-licensing and the amount of sweets eaten was used to determine the degree of cross-domain
moral self-licensing. It was expected that in the case of moral self-licensing the participants would be more outspoken in their opinion as well as eating more sweets.

After conducting several statistical analyses it became clear that there is no moral self-licensing to be found in regard to popular music, neither cross- nor in-domain. It had also no influence whether the participants were assigned to the category of popular music or if they chose the musical style themselves. Also in regard to the in-domain licensing effect in combination with classical music there is no evidence of moral selflicensing. However, there was a significant difference between the consumption of sweets after listening to classical music compared to the consumption after listening to popular or no music at all.

This research therefore concludes that moral self-licensing can be triggered by the consumption of classical music. The research was conducted by means of a laboratory experiment which means that the environment was very controlled. And the fact that it was not conducted in a natural environment like a concert hall makes it more likely that a significant difference between the groups can actually be seen as moral licensing, as the environment cannot be blamed for the licensing action. If in a blunt room with relatively poor sound quality a moral licensing effect is discovered, then it seems more likely that it was indeed evoked by the consumption of the music and not simply by the circumstance of being at a concert.

The research question asked in this research was the following: To what extent does moral self-licensing occur in the cultural domains of classical and popular music? To put it bluntly, there is no proof that moral self-licensing occurs to any extent in the cultural domain of popular music. In the cultural domain of classical music moral selflicensing occurs only in the form of cross-domain licensing. For this research the extent of moral self-licensing was determined by the number of sweets eaten. To say it quantitatively, the participants who had listened to classical music ate at least six times as many pieces of sweets than the other groups. It can also be added that the moral licensing effect is not influenced by gender, the familiarity with the music or by the feelings one experiences while listening to the music.

To sum up, the various analyses made it evident that H 6 has to be rejected. There was no significant difference to be found in the outspokenness on the moral licensing statements between groups A, B, C and group D. Therefore, H1 and H2 were weakened
as no in-domain moral licensing was found neither in relation with popular, nor with classical music. In a future research it might be worthwhile to retest the in-domain moral licensing as at this point, purely from the results of the experiment, no conclusions can be drawn as to why cross-domain moral licensing was found after the consumption of classical music but not in-domain licensing. It may very well be that the statements are to blame and that other statements or means would have triggered an indomain licensing action. H 4 has to be rejected as well. There was no significant difference in the amount of sweets eaten between groups B and C compared to group D. H5 was strengthened by the results on cross-domain moral licensing. In future research it might therefore be interesting to look into classical music some more or to test other art forms to see if the licensing difference between high and low persists. Moreover, the explanations offered as to why it was expected to find moral self-licensing, turned out not to be significant. In the future it would therefore be preferable to pre-test any explanations or assumptions so that the actual research can focus on the licensing action without having to include the testing of these explanations. And finally, H3 can be confirmed as the consumption of classical music does indeed trigger cross-domain moral self-licensing.

A major struggle during this research was the gathering of participants. It proved to be difficult to interest students to participate in the experiment, especially when some time passed in between the approach of the students and the actual experiment. Moreover, the only way an approach resulted in participants was when it was done in person, meaning that approaches via social media or channel messages had no effect. By widening the population and by approaching participants directly on campus and then conducting the experiment right away, a sample size of 84 was achieved. Nevertheless, the initial population restriction resulted in a time loss due to which the original sample goal of 120 students could not be reached. For future research it would therefore be advisable to widen the population specifications from the start or if for certain reasons the experiment can only be conducted with a very limited population such as only students of one particular study, the participation in the experiment should be integrated in a course

Another difficulty was the lack of existing research in this specific domain. This lack of research also meant a lack of arguments and knowledge on the topic of moral
licensing after the consumption of culture. This means that ideally pre-tests should have been conducted to see whether the assumptions regarding the alleged health effects of music are known and to see if the valuation of music is indeed still prevalent. A positive result would have then enabled to focus solely on detecting a possible licensing effect instead of trying to find an explanation for the licensing effect at the same time (while the existence of the licensing effect had yet to be determined as well). Yet, the assumptions on why moral licensing could be found in the cultural domain could not be proven to be right among the sample in this research. The results of this research are therefore limited, as they offer no explanation in regard to possible reasons why crossdomain moral licensing takes place in the domain of classical music. But then again, the main objective of this research was to see if there exists moral licensing in the arts and culture domain. And this question can be answered in the affirmative. Therefore, the results of this thesis can add another domain to the already established domains in which moral self-licensing occurs. Moreover, the cross-domain moral licensing found after the consumption of classical music calls for further research in this domain.

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## 7. Appendix

### 7.1. Appendix A - Music selection

## Popular Music

| Performer | OMI | John Legend | Avicii | Michel Teló |
| :--- | :--- | :--- | :--- | :--- |
| Title | Cheerleader | All of Me | Wake Me Up | Ai Se Eu Te <br> Pego |
| Interpretation <br> used | Official Video <br> (YouTube) | Official Video <br> (YouTube) | Official Video <br> (YouTube) | Official Video <br> (YouTube) |
| Origin <br> Performer | Jamaican | American | Swedish | Brazilian |
| Appearance in <br> charts | 2015 | 2014 | 2013 | 2012 |
| Type of Piece | Song | Song | Song | Song |
| Duration | $3: 09$ | $5: 07$ | $4: 32$ | $2: 45$ |

## Classical Music

| Composer | Johann Pachelbel | Alessandro <br> Marcello | Franz Anton <br> Hoffmeister |
| :--- | :--- | :--- | :--- |
| Title | Canon from Canon <br> \& Gigue in D (major <br> for strings and <br> basso continuo | Adagio from <br> Concerto in d minor <br> for Oboe and String <br> Orchestra | Rondeau from Flute <br> Concerto in G major |
|  | P 37; T 337; PC 358 | WV Z 799; SF 935 | GroF 442 |
| Opus | Jean-Francois <br> Interpretation <br> used | Elgar Howarth: <br> Paillard: Paillard <br> Chamber Orchestra | Orchestra / Derek <br> Charence Leonard: <br>  |


|  | February 1983, <br> Eglise Notre-Dame <br> du Liban, Paris |  |  |
| :--- | :--- | :--- | :--- |
| Origin Composer | Germany | Italy | Germany |
| Musical era / Style | Baroque | Baroque | Classical |
| Type of Piece | Chamber Music | Concert | Concert |
| Instrumentation | violin, basso | Solo: oboe | Solo: flute |
|  | continuo | Orchestra: violin, <br> viola, basso | Orchestra: oboe, <br> horn, strings |
| Duration | $6: 16$ | continuo |  |

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### 7.2. Appendix B - Questionnaire

## Questionnaire

## Demographics

1) What is your gender?
$\bigcirc$ female
$\bigcirc$ male
2) How old are you?
3) What are you studying? $\qquad$
4) What is your nationality? $\qquad$
5) In what area did you live most of your life?ruralsuburban
$\bigcirc$ urban

## Perception of music

6) Please describe the kind of music you just listened to

7) Were you familiar with the music you just listened to?
$\bigcirc$ Yes, I was familiar with all of it
〇 Yes, I was familiar with part of it
O No, I was not familiar with any of it
8) Would you listen to this kind of music in your leisure time?
$\bigcirc$ Yes
$\bigcirc$ No
9) Please indicate to what extent you agree/disagree with the following statements. The music I just listened to made me feel ...

- ... angry

Disagree Agree

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... calm

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... excited

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... happy

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... relaxed

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... sad

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... stimulated

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... stressed

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- Other: $\qquad$

10) Please indicate to what extent you agree/disagree with the following statements about the music you just listened to

- I think that this kind of music will help to relax

Disagree Agree

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music while studying will help to concentrate

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music will help to overcome stress

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music will improve cognitive abilities

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music before bedtime will improve sleep

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music will enhance capacity of memory

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music will help coping with depression

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- I think listening to this kind of music will increase motivation

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

11) People who listen to the kind of music you just heard are probably ...

- ... well educated

Disagree Agree

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... low educated

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... Younger than 35

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... older than 35

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... earning a lot of money

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... economising

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... working in high-end jobs

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... living in the city

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- ... living in the country-side

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

## Consumption of music

12) Please indicate how often you listen to these music genres in your leisure time - Blues

| often | rarely | never |
| :--- | :--- | :--- |

- Classical

- Country

- Dance

- Hip-hop

- Jazz

- Metal

- Pop

- Punk

- Rap

- $\quad \mathrm{RnB}$

- Rock

- Techno


13) Where do you listen to most of your music?
$\bigcirc$ Radio
$\bigcirc$ Internet (Youtube, streaming services etc.)
$\bigcirc$ Record
$\bigcirc C D$
〇 Device (Smartphone / Laptop / Computer)

14）Where do you buy most of your music？
$\bigcirc$ Stores
$\bigcirc$ Online
$\bigcirc$ I do not pay for music

15）Do you make use of music streaming services（e．g．Spotify，Apple Music etc．）？
O I exclusively use streaming services to listen to music
O The majority of the time I use streaming services to listen to music
〇 I use streaming services and other means to listen to music equally
〇 I occasionally use streaming services to listen to music
〇 I don＇t use streaming services to listen to music

16）How likely are you to use a free service instead of paying for music content online？
$\bigcirc$ Very likely
$\bigcirc$ Quite likely
O Moderately likely
$\bigcirc$ Slightly likely
$\bigcirc$ Not likely

17）Do you download music legal or illegally？
O If I download music then it is always from illegal sources
O I download more music from illegal than from legal sources
〇 I download music from illegal and legal sources equally
〇 I download more music from legal than from illegal sources
O I only download music from legal sources
$\bigcirc$ I never download music
18) Please indicate to what extent you agree/disagree with the following statements?

- All music should be freely available

Disagree Agree

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- Streaming music does financially harm musicians

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- Downloading music illegally does financially harm musicians

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- Downloading music illegally should never be persecuted

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

- It is okay to download music illegally

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

Thank you very much for participating!

### 7.3. Appendix C - Analysis

Table C1: Number of Sweets eaten * Gender Crosstabulation


| Total | Count <br> \% within <br> Gender | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ |
| :--- | :--- | ---: | ---: | ---: |

Table C2: Familiarity with music \& inclination to listen in leisure time
Familiarity of the participants with music they heard

|  | A (classical) | B (popular) | C (choice) |
| :--- | :--- | :--- | :--- |
| Yes, I was familiar <br> with all of it | $0.0 \%$ | $90.5 \%$ | $85.7 \%$ |
| Yes, I was familiar <br> with part of it | $76.2 \%$ | $4.8 \%$ | $9.5 \%$ |
| No, I was not familiar <br> with any of it | $23.8 \%$ | $4.8 \%$ | $4.8 \%$ |

Whether participants would listen to the same kind of music in their leisure time

|  | A (classical) | B (popular) | C (choice) |
| :--- | :--- | :--- | :--- |
| Yes | $47.6 \%$ | $66.7 \%$ | $66.7 \%$ |
| No | $52.4 \%$ | $33.3 \%$ | $33.3 \%$ |

Table C3: Factor analysis for feelings, effects, and characteristics

|  | Component |  |  |
| :--- | ---: | ---: | ---: |
|  | 1 | 2 | 3 |
| excited | .897 | -.020 | -.139 |
| happy | .830 | .044 | -.236 |
| stimulate | .702 | -.019 | .150 |
| d | -.085 | .920 | .056 |
| calm | .086 | .901 | -.111 |
| relaxed | .068 | -.115 | .756 |
| stressed | -.046 | .290 | .724 |
| sad | -.321 | -.257 | .674 |


|  | Component |  |
| :---: | :---: | :---: |
|  | 1 | 2 |
| concentrating | . 827 | -. 233 |
| improve sleep | . 822 | -. 030 |
| cognitive abilities | . 753 | . 358 |
| relaxing | . 735 | . 093 |
| capacity of memory | . 653 | . 418 |
| help depression | . 028 | . 841 |
| motivate | -. 003 | . 798 |
| less stress | . 135 | . 741 |
|  | Component |  |
|  | 1 | 2 |
| economising | . 865 | -. 061 |
| earning a lot of money | . 745 | . 378 |
| livng in the countryside | . 721 | -. 036 |
| working in high-end jobs | . 690 | . 559 |
| living in the city | . 647 | -. 367 |
| older than 35 | . 055 | . 916 |
| younger than 35 | . 045 | -. 840 |
| low educated | . 476 | -. 668 |
| well educated | . 481 | . 618 |

Table C4: Pearson's r for the various scale variables

|  |  | A = Classical | B = Popular | C = Choice |
| :--- | :--- | ---: | ---: | ---: |
| music freely available |  |  |  |  |
| feelings3 | Pearson | $\mathbf{4 0 2}$ | -.219 | .353 |
|  | Correlation | $\mathbf{0 7 1}$ | .341 | .127 |
|  | Sig. (2-tailed) | $\mathbf{2 1}$ | 21 | 20 |
|  | N | $\mathbf{4}$ |  |  |
|  | Pearson | .033 | .220 |  |
|  | Correlation | $\mathbf{0 4 9}$ | .887 | .338 |
|  | Sig. (2-tailed) | $\mathbf{2 1}$ | 21 | 21 |

Streaming harms musicians

| effects1 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .405 \\ .068 \\ 21 \end{array}$ | $\begin{array}{r} -.176 \\ .445 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .375 \\ .094 \\ 21 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| illegal downloading harms musicians |  |  |  |  |
| feelings2 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .324 \\ .152 \\ 21 \end{array}$ | $\begin{array}{r} -.374 \\ .095 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} -.038 \\ .873 \\ 20 \\ \hline \end{array}$ |
| effects1 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .357 \\ .112 \\ 21 \end{array}$ | $\begin{array}{r} -.393 \\ .078 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .158 \\ .494 \\ 21 \\ \hline \end{array}$ |
| people2 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} -.312 \\ .169 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} -.177 \\ .442 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .439^{*} \\ .046 \\ 21 \\ \hline \end{array}$ |
| no persecution for illegal downloading |  |  |  |  |
| people1 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} -.403 \\ .070 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .130 \\ .574 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r}.363 \\ .106 \\ 21 \\ \hline\end{array}$ |
| illegal downloading is okay |  |  |  |  |
| feelings2 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .060 \\ .795 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .382 \\ .088 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r}.089 \\ .709 \\ 20 \\ \hline\end{array}$ |
| feelings3 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .372 \\ .097 \\ 21 \end{array}$ | $\begin{array}{r} .170 \\ .462 \\ 21 \end{array}$ | $\begin{array}{r}.027 \\ .911 \\ 20 \\ \hline\end{array}$ |
| effects1 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} -.041 \\ .861 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .503^{*} \\ .020 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r}.245 \\ .298 \\ 20 \\ \hline\end{array}$ |
| effects2 | Pearson <br> Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} -.058 \\ .803 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .485^{*} \\ .026 \\ 21 \end{array}$ | $\begin{array}{r} .681 * * \\ .001 \\ 20 \\ \hline \end{array}$ |


| people2 | Pearson <br> Correlation <br> Sig．（2－tailed） <br> N | $\begin{array}{r} .508^{*} \\ .019 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .115 \\ .621 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .228 \\ .335 \\ 20 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| Number of Sweets eaten |  |  |  |  |
| feelings3 | Pearson <br> Correlation <br> Sig．（2－tailed） <br> N | $\begin{array}{r} -.379 \\ .090 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .323 \\ .153 \\ 21 \\ \hline \end{array}$ | $\begin{array}{r} .288 \\ .219 \\ 20 \\ \hline \end{array}$ |
| people2 | Pearson Correlation Sig．（2－tailed） N | $\begin{array}{r} -.040 \\ .862 \\ 21 \end{array}$ | $\begin{array}{r} -.286 \\ .210 \\ 21 \\ \hline \end{array}$ | -.518 <br>  <br> .016 <br> 21 |

Table C5：Musical styles

|  | $\stackrel{\mathscr{E}}{\underset{\sim}{0}}$ | $\begin{aligned} & \text { W } \\ & \text { W } \\ & \text { W } \\ & \text { Win } \end{aligned}$ | $\begin{aligned} & B \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { 会 } \\ & \frac{1}{6} \end{aligned}$ | $\begin{aligned} & \text { N } \\ & \text { © } \end{aligned}$ | $\begin{aligned} & \text { Wi } \\ & \sum \end{aligned}$ | $0$ | 关 | 骨 | 合 | $\begin{aligned} & \text { 플 } \\ & \text { O} \\ & \hline \end{aligned}$ | O \＃ ¢ $\sim$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Classical（A） |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Median | 3 | 3 | 4 | 2 | 3 | 3 | 4 | 2 | 4 | 3 | 3 | 2 | 3 |
| Mode | 4 | 3 | 4 | 2 | 3 | 3 | 4 | 1／2 | 4 | 3 | 3 | 1／2／3 | $2 / 3$ |
| Popular（B） |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Median | 3 | 3 | 3 | 2 | 1 | 3 | 4 | 2 | 4 | 2 | 2 | 3 | 3 |
| Mode | 3 | 3 | 4 | 2／3 | 1 | 2／3 | 4 | 2 | 4 | 1／2 | 2／3 | 2 | 3 |
| Choice（C） |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Median | 3 | 2 | 4 | 2 | 2 | 3 | 4 | 2 | 4 | 3 | 2 | 3 | 3 |
| Mode | 3 | 2 | 4 | 2 | 2 | 3 | 4 | 1 | 4 | 3 | 3 | 2 | 3 |
| None（D） |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Median | 3 | 3 | 3 | 2 | 2 | 3 | 4 | 1 | 4 | 2 | 2 | 3 | 3 |
| Mode | 3 | 3 | 4 | 2 | 1 | 3 | 4 | 1 | 4 | 2 | 3 | 3 | 3 |

Table C6：Consumption of music

## By what means participants listen to most of their music

|  | A | B | C | D |
| :--- | ---: | ---: | ---: | ---: |
| Radio |  |  |  | $4.8 \%$ |
| Internet | $61.9 \%$ | $38.1 \%$ | $61.9 \%$ | $47.6 \%$ |
| Record |  |  |  |  |
| CD |  |  |  |  |
| Device | $38.1 \%$ | $61.9 \%$ | $33.3 \%$ | $52.4 \%$ |

Acquisition of music by the participants

|  | A | B |  | C |  | D |
| :--- | ---: | ---: | :--- | :--- | :---: | :---: |
| Stores | $9.5 \%$ | $4.8 \%$ |  | $4.8 \%$ |  |  |
| Online | $38.1 \%$ | $23.8 \%$ | $38.1 \%$ | $33.3 \%$ |  |  |
| No payment | $52.4 \%$ | $71.4 \%$ | $61.9 \%$ | $61.9 \%$ |  |  |

$\qquad$

## Streaming Services

|  | A | B |  | C |  | D |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| Exclusively | $19.0 \%$ | $4.8 \%$ | $19.0 \%$ | $19.0 \%$ |  |  |
| Majority | $33.3 \%$ | $47.6 \%$ | $42.9 \%$ | $28.6 \%$ |  |  |
| Equal | $14.3 \%$ | $23.8 \%$ | $14.3 \%$ | $19.0 \%$ |  |  |
| Occasionally | $9.5 \%$ | $14.3 \%$ | $9.5 \%$ | $19.0 \%$ |  |  |
| Never | $23.8 \%$ | $9.5 \%$ | $14.3 \%$ | $14.3 \%$ |  |  |

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Using a free service instead of paying for music online

|  | A |  | B | C |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| Very likely | $66.7 \%$ | $66.7 \%$ | $52.4 \%$ | $66.7 \%$ |  |
| Quite likely | $28.6 \%$ | $14.3 \%$ | $38.1 \%$ | $19.0 \%$ |  |
| Moderately likely |  | $14.3 \%$ | $4.8 \%$ | $9.5 \%$ |  |
| Slightly likely | $4.8 \%$ | $4.8 \%$ |  | $4.8 \%$ |  |
| Not likely |  |  | $4.8 \%$ |  |  |

$\qquad$

Downloading legally or illegally

|  | A | B |  | C |  | D |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| Always illegal | $19.0 \%$ | $9.5 \%$ | $14.3 \%$ | $23.8 \%$ |  |  |
| More illegal | $47.6 \%$ | $38.1 \%$ | $28.6 \%$ | $14.3 \%$ |  |  |
| Equal | $4.8 \%$ | $14.3 \%$ |  | $19.0 \%$ |  |  |
| More legal | $9.5 \%$ |  | $4.8 \%$ | $4.8 \%$ |  |  |
| Always legal | $4.8 \%$ | $14.3 \%$ | $4.8 \%$ | $9.5 \%$ |  |  |
| Never | $14.3 \%$ | $23.8 \%$ | $47.6 \%$ | $28.6 \%$ |  |  |


[^0]:    ${ }^{1}$ http://www.dutchcharts.nl
    ${ }^{2}$ http://www.top40.nl
    ${ }^{3}$ http://megatop50.3fm.nl

[^1]:    ${ }^{4}$ http://www.classicfm.nl/muziek/lijst/klassieke-top-1000

[^2]:    ${ }^{5}$ Pearson's r \& regression analysis, crosstabs \& chi-square test for independence, and ANOVA

